BETCO

AMPLE STORAGE

ERWIN, NORTH CAROLINA

SUBMITTED TO :

LAMPE MANAGEMENT COMPANY
ATTN: GUY LAMPE
225 PEEDIN ROAD
SMITHFIELD, NORTH CAROLINA 27577

PHONE: (919) 934−3041

WIND LOAD DESIGN DATA:

ULTIMATE DESIGN WIND SPEED (V_{ULT}): 119 MPH
NOMINAL DESIGN WIND SPEED (V_{ASD}): 92 MPH
RISK CATEGORY: I
WIND EXPOSURE: B
INTERNAL PRESSURE COEFFICIENT: ± 0.18

SNOW LOAD DESIGN DATA:

GROUND SNOW LOAD (Pg): 10 PSF

EARTHQUAKE LOAD DESIGN DATA:

− RISK CATEGORY: I
− SEISMIC IMPORTANCE FACTOR (I): 1.0
− SEISMIC DESIGN CATEGORY: C
− ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7−10 SECTION 12.8)
− BASIC SEISMIC−FORCE−RESISTING SYSTEM: LIGHT FRAMED WALLS WITH STEEL SHEAR PANELS
− SITE CLASS: D
− DESIGN BASE SHEAR:
BUILDING "A": 3.360^{K}
BUILDING "B": 0.336^{K}
BUILDING "D": 2.464^{K}
BUILDING "E": 0.784^{K}
BUILDING "F": 0.924^{K}
BUILDING "G": 3.360^{K}
− RESPONSE MODIFICATION FACTOR (R): 7.0
− SEISMIC RESPONSE COEFFICIENT (C_S): 0.028
− MAPPED SPECTRAL RESPONSE ACCELERATION
(S_S): 18.2% G
(S_1): 8.5% G
− SPECTRAL RESPONSE COEFFICIENTS
(S_{DS}): 19.5% G
(S_{D1}): 13.7% G

BUILDING DATA :

BUILDING DESCRIPTION :

SINGLE STORY METAL BUILDINGS BOLTED TO CONCRETE SLAB FOUNDATIONS.

BUILDING SIZE :

BUILDING "A"	120' x 200' =	24,000 sq. ft.	10'−0"/21'−0"	EAVE HEIGHT
BUILDING "B"	30' x 80' =	2,400 sq. ft.	10'−0"	EAVE HEIGHT
BUILDING "D"	80' x 220' =	17,600 sq. ft.	10'−0"	EAVE HEIGHT
BUILDING "E"	40' x 140' =	5,600 sq. ft.	10'−0"	EAVE HEIGHT
BUILDING "F"	30' x 220' =	6,600 sq. ft.	12'−0"	EAVE HEIGHT
BUILDING "G"	120' x 200' =	24,000 sq. ft.	10'−0"	EAVE HEIGHT
	TOTAL =	80,200 sq. ft.		

PARKING DATA :

SEE SITE PLAN BY OTHERS

BUILDING CODE :

THE 2018 NORTH CAROLINA BUILDING CODE

DESIGN CRITERIA :

THESE BUILDINGS HAVE BEEN DESIGNED TO CONFORM TO THE STRUCTURAL REQUIREMENTS OF THE 2018 NORTH CAROLINA BUILDING CODE, WITH CURRENT REVISIONS.

THESE BUILDINGS HAVE BEEN DESIGNED FOR THE FOLLOWING LIVE LOADINGS IN ADDITION TO THE DEAD LOADINGS :

ROOF LIVE LOADING : 20 psf
FLOOR LIVE LOADING: 125 psf
USE GROUP: S−1
TYPE OF CONSTRUCTION: II−B

IT IS THE RESPONSIBILITY OF THE BUYER/OWNER TO VERIFY THE FIREWALL, LIVE LOAD AND WIND LOAD REQUIREMENTS WITH THE LOCAL CODE AUTHORITY.

PROJECT NUMBER :

NC23237

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

NOTE: DETAIL LABELS CONTAINED WITHIN THIS SET OF PLANS MAY REFERENCE THE ERECTION DRAWINGS MARKED IN THIS SCHEDULE.

ERECTION DRAWINGS

ERC010X		ERC200X	X	ERC420X	X	ERC619X		ERC752X	
ERC016X	X	ERC201X	X	ERC500X		ERC620X		ERC753X	
ERC100X	X	ERC202X	X	ERC505X	X	ERC621X		ERC754X	X
ERC105X	X	ERC203X	X	ERC506X	X	ERC622X		ERC800X	
ERC106X		ERC204X		ERC515X		ERC623X		ERC900X	
ERC110X	X	ERC206X		ERC600X	X	ERC624X		ERC901X	
ERC112X	X	ERC207X	X	ERC601X	X	ERC625X		ERC902X	
ERC115X	X	ERC208X	X	ERC602X	X	ERC629X		ERC903X	
ERC120X		ERC209X		ERC603X		ERC630X	X	ERC904X	
ERC130X	X	ERC250X	X	ERC604X		ERC631X	X	ERC905X	
ERC150X		ERC250XFHP		ERC605X		ERC650X		ERC907X	
ERC151X		ERC251X		ERC606X		ERC651X		ERC908X	
ERC152X		ERC251XFHP		ERC607X		ERC652X		ERC910X	
ERC153X		ERC252X	X	ERC608X		ERC700X	X	ERC911X	
ERC154X		ERC251XFHP		ERC609X		ERC712X		ERC912X	
ERC155X		ERC253X		ERC610X		ERC713X		ERC913X	
ERC175X		ERC254X	X	ERC611X		ERC720X		ERC914X	
ERC176X		ERC255X		ERC612X		ERC725X		ERC915X	
ERC177X		ERC256X		ERC613X		ERC730X		ERC916X	
ERC178X		ERC260X	X	ERC614X		ERC731X		ERC917X	
ERC179X		ERC262X	X	ERC615X		ERC731XFHP		ERC918X	
ERC180X		ERC302X	X	ERC616X		ERC732X		ERC919X	
ERC181X		ERC302X(INS)		ERC617X		ERC732XFHP			
ERC182X		ERC410XFL	X	ERC618X		ERC750X			
ERC183X		ERC411X		ERC618XALT		ERC751X			

SCHEDULE OF DRAWINGS

BETCO, Inc.
228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

6/6/2024 3:49:02 PM, RELEASE FOR CONSTRUCTION

GENERAL NOTES:

1. CONCRETE FOUNDATIONS AND FLOOR SLAB ARE TO BE SUPPLIED AND INSTALLED BY OTHERS . WEDGE ANCHORS FOR INTERIOR AND EXTERIOR FOOTINGS SUPPLIED AND INSTALLED BY BETCO.
2. EXTERIOR OPENINGS, NOT DESIGNATED AS DOOR LOCATIONS, TO BE COMPLETED USING EXTERIOR WALL PANELS FURNISHED BY BETCO.
3. USE DOW 791 SILICONE CAULK AND 1/2" WIDE BUTYL RUBBER TAPE SEALANT FOR ROOF INSTALLATION. USE DOW 799 SILICONE CAULK AT DOWNSPOUT TO GUTTER JOINT.
4. INTERIOR PARTITIONS PERPENDICULAR TO ROOF BEAM(S) MUST BE COMPLETED BEFORE ROOF PANELS ARE INSTALLED. USE PARTITION FRAMING TO PLUMB AND SQUARE COLUMNS AND HEADER SECTIONS. CHECK BUILDING WIDTH AT TOP OF COLUMNS PRIOR TO ROOF INSTALLATION.
5. THOROUGHLY SWEEP ROOF PANELS FOLLOWING INSTALLATION TO REMOVE METAL DRILLINGS.
6. THIS DESIGN IS BASED ON USING ONLY METAL BUILDING COMPONENTS WHICH ARE PROPRIETARY TO BETCO. FURTHER, THE PROFESSIONAL ENGINEER'S SEAL IS INVALID UNLESS ONLY BETCO METAL BUILDING COMPONENTS ARE UTILIZED.
7. METAL STUDS (IF APPLICABLE) MAY REQUIRE FIELD CUTTING DEPENDING UPON THE EAVE HEIGHT OF THE STRUCTURE.
8. UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.
9. THESE DRAWINGS ARE THE PROPERTY OF BETCO, INC. AND MAY NOT BE USED OR REPRODUCED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN CONSENT OF BETCO, INC.
10. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH AND COORDINATED WITH THE ARCHITECTURAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.
11. THE GENERAL CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL SLEEVES, PADS, DEPRESSIONS, OPENINGS, ETC. AS REQUIRED BY THE VARIOUS TRADES.

FOUNDATIONS:

1. THE FOUNDATION DESIGN IS BASED ON A PRESUMED ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF. NOTIFY ENGINEER IF SITE CONDITIONS DIFFER FROM DESIGN ASSUMPTIONS SPECIFIED.
2. IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSTABLE OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED.
3. TOP OF FOOTING ELEVATIONS ARE SHOWN ON THE DRAWINGS ARE TO BE DETERMINED BY THE CONTRACTOR IN THE FIELD IN ACCORDANCE WITH THE GUIDE LINES SET FORTH IN THE DRAWINGS AND SPECIFICATIONS.
4. FILL MATERIAL SHALL BE FREE OF ROOTS. WOOD OR OTHER ORGANIC MATERIAL AND COMPLY WITH THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. MATERIALS USED FOR FILL UNDER FOOTINGS AND WITHIN BUILDING LIMITS SHALL BE TESTED AND APPROVED FOR THE USE BY THE GEOTECHNICAL TESTING AGENCY.
5. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE STRUCTURAL ENGINEERS APPROVAL.
6. FOUNDATION WALLS RETAINING EARTH SHALL BE BRACED AGAINST BACK FILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE.
7. FOUNDATION WALLS OR GRADE BEAMS HAVING EARTH PLACED ON EACH SIDE SHALL HAVE BOTH FILLED SIMULTANEOUSLY TO MAINTAIN A COMMON ELEVATION.
8. DO NOT PLACE CONCRETE IN ANY EXCAVATION CONTAINING ICE, FROST, FROZEN GROUND OR FREE WATER. FROZEN SUB GRADES MUST BE THAWED AND RECOMPACTED PRIOR TO PLACING CONCRETE.
9. EARTH FORMED FOOTINGS SHALL CONFORM TO THE SHAPE, LINES, AND DIMENSIONS AS SHOWN ON THE FOUNDATION PLAN. ALL WATER SHALL BE REMOVED BEFORE DEPOSITING CONCRETE.
10. BEFORE PLACING CONCRETE, ALL EMBEDDED ITEMS SHALL BE PROPERLY LOCATED, ACCURATELY POSITIONED, AND MAINTAINED SECURELY IN PLACE.
11. THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
12. PERIMETER FOUNDATION MUST NOT EXCEED 1/4" ELEVATION VARIATION ALONG ANY 50' DISTANCE OF BUILDING LENGTH.
13. PERIMETER FOUNDATION TO EXTEND BELOW FROST LINE. VERIFY REQUIRED DEPTH WITH LOCAL BUILDING OFFICIALS PRIOR TO PROCEEDING WITH FOUNDATION WORK AND NOTIFY ENGINEER OF DEVIATION FROM DRAWING.
14. THE AMERICAN CONCRETE INSTITUTE DOES NOT RECOGNIZE FIBERMESH AS A SUBSTITUTE FOR WIRE MESH REINFORCED CONCRETE WHEN SUBJECTED TO TENSILE STRESS
15. SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS . . . OFFSET CUTS 2'-6" MINIMUM FROM INTERIOR COLUMN LINES.

REINFORCING STEEL:

1. REINFORCING STEEL SHALL BE NEW BILLET STEEL, DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60 (Fy-60,000 PSI).
2. FIELD BENDING OF CONCRETE REINFORCING STEEL IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
3. ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI SP-66 "ACI DETAILING MANUAL-1994" ANDTHE "CRSI MANUAL OF STANDARD PRACTICE", LATEST EDITION.
4. PLACE REINFORCEMENT AND TIES IN GROUT SPACES PRIOR TO GROUTING.
5. CONCRETE COVERAGE OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE UNLESS NOTED OTHERWISE.

A.	FOOTING AND GRADE BEAMS IN GROUND CONTACT	3 INCHES
B.	BEAMS AND COLUMNS	2 INCHES
C.	SLABS, WALLS, AND JOISTS	3/4 INCH - NOT EXPOSED TO EARTH, LIQUID OR WEATHER
D.	SLABS ON GRADE	2 INCHES FROM TOP
E.	FORMED SURFACES IN GROUND CONTACT	2 INCHES

6. DEVELOPMENT LENGTHS AND LAP SPLICES SHALL BE IN ACCORDANCE WITH ACI 318-14 CHAPTER 12 AND AS INDICATED ON THE DRAWINGS. WHERE SPLICES ARE NOT CALLED OUT ON THE DRAWINGS, USE CLASS "B", BUT IN NO CASE SHALL ANY SPLICE BE LESS THAN 12 INCHES. FOR BARS AS INDICATED BELOW THE BASIC DEVELOPMENT LENGTH SHALL BE MULTIPLIED BY THE FACTORS AS INDICATED FOR TENSION OR COMPRESSION AND THEN ROUNDED UP TO THE NEAREST WHOLE INCH. THE FACTORS INDICATED BELOW ARE CUMULATIVE FOR EACH OF THE CONDITIONS APPLICABLE.
7. WELDED WIRE MAT/FABRIC SHALL CONFORM TO ASTM A184 AND A185 RESPECTIVELY AND BE LAPPED 1'-0" AT ALL SPLICES.
8. ALL REINFORCING TERMINATING AT THE TOPS OF COLUMNS AND PILASTERS SHALL BE HOOKED UNLESS OTHERWISE NOTED.
9. SUBMIT SHOP DRAWINGS FOR FABRICATION, BENDING, AND PLACEMENT OF CONCRETE REINFORCEMENT. COMPLY WITH ACI DETAILING MANUAL (SP-66) SHOWING BAR SCHEDULES, STIRRUP SPACING, DIAGRAMS OF BENT BARS, ARRANGEMENT OF CONCRETE REINFORCEMENT. INCLUDE SPECIAL REINFORCEMENT REQUIRED AT OPENINGS THROUGH CONCRETE STRUCTURES. INCLUDE ALL ACCESSORIES SPECIFIED/ REQUIRED TO SUPPORT REINFORCING.
10. SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR PRIOR TO SUBMISSION. DRAWINGS SHALL BEAR THE CONTRACTOR'S APPROVAL STAMP ACCEPTING RESPONSIBILTY FOR DIMENSIONS, QUANTITIES AND COORDINATION WITH THE OTHER TRADES.
11. CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER AND TESTING AGENCY A MINIMUM OF 48 HOURS PRIOR TO ALL CONCRETE POURS IN ORDER TO PERMIT REINFORCING STEEL REVIEW AS REQUIRED BY THE INSPECTION SCHEDULE.
12. REINFORCING IN ALL CONTINUOUS STRIP FOOTINGS SHALL HAVE CORNER BARS OR DOWELS. PROVIDE AT ALL CORNERS AND INTERSECTIONS.

CONSTRUCTION AND SAFETY:

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SAFETY REGULATIONS, PROGRAMS AND PRECAUTIONS RELATED TO ALL WORK ON THIS PROJECT.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF PERSONS AND PROPERTY EITHER ON OR ADJACENT TO THE PROJECT AND SHALL PROTECT SAME AGAINST INJURY, DAMAGE OR LOSS.
3. MEANS AND METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIALS ARE SOLELY THE CONTRACTORS RESPONSIBILITY.
4. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED IN CONJUNCTION WITH THE DRAWINGS OF OTHER CONSULTANTS AND TRADES. THE CONTRACTOR SHALL COORDINATE THE VARIOUS REQUIREMENTS.
5. NO OPENINGS NOR ANY CHANGES IN SIZE, DIMENSION OR LOCATION SHALL BE MADE IN ANY STRUCTURAL ELEMENTS WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
6. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED ON THE STRUCTURE. SUCH LOADS SHALL NOT EXCEED THE CAPACITY OF THE STRUCTURE AT ANY TIME.
7. THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION, AND ANY TEMPORARY BRACING OR SUPPORT REQUIRED TO ACCOMMODATE THE CONTRACTORS MEANS AND METHODS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
8. THE CONTRACTOR SHALL INFORM THE STRUCTURAL ENGINEER, CLEARLY AND EXPLICITLY IN WRITING, OF ANY DEVIATION OR SUBSTITUTION OF REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS NOT RELIEVED OF ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS BY VIRTUE OF THE STRUCTURAL ENGINEERS REVIEW OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNLESS THE CONTRACTOR HAS CLEARLY AND EXPLICITLY INFORMED THE STRUCTURAL ENGINEER IN WRITING OF ANY DEVIATIONS OR SUBSTITUTIONS AT TIME OF SUBMISSION, AND THE STRUCTURAL ENGINEER HAS GIVEN WRITTEN APPROVAL FOR THE SPECIFIC DEVIATIONS OR SUBSTITUTIONS.
9. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DEFICIENCIES, OMISSIONS, CONTRADICTIONS OR AMBIGUITIES IN THE DRAWINGS OR SPECIFICATIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER. CORRECTIONS OR WRITTEN INTERPRETATIONS SHALL BE ISSUED BEFORE AFFECTED WORK MAY PROCEED.
10. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH NEW WORK IN AREAS AFFECTED BY THE EXISTING CONDITIONS. STRUCTURAL ENGINEER SHALL BE INFORMED IN WRITING OF CONFLICTS BETWEEN EXISTING AND PROPOSED NEW CONSTRUCTION.
11. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. INCONSISTENCIES ON THE STRUCTURAL DRAWINGS OR BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER CONTRACT, SHOP, FABRICATION, OR OTHER DRAWINGS OR INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH AFFECTED WORK.
12. DO NOT SCALE THESE DRAWINGS, USE THE DIMENSIONS SHOWN.

CONCRETE:

1. SUBMIT WRITTEN REPORTS OF EACH PROPOSED CONCRETE DESIGN MIX NOT LESS THAN 15 DAYS PRIOR TO THE START OF WORK. DESIGN MIXES PREPARED MORE THAN TWELVE (12) MONTHS PRIOR TO THE DATE THE SUBMITTAL ARE NOT PERMITTED.
2. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14).
3. ALL CONCRETE SHALL BE TESTED BY AN INDEPENDENT TESTING AGENCY FOR STANDARD PARAMETERS (SLUMP, COMPRESSIVE STRENGTH, ETC.) TWO COPIES OF ALL REPORTS SHALL BE SUBMITTED TO THE ENGINEER/ ARCHITECT.
4. ALL NORMAL WEIGHT CONCRETE SHALL HAVE ASTM C-33 AGGREGATE WITH MAXIMUM UNIT WEIGHT OF 150 PCF. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI AT 28 DAYS, MINIMUM FOR FOUNDATIONS AND SLABS ON GRADE. ALL CONCRETE FOR FLOOR SLABS ON METAL DECK FORMS SHALL BE NORMAL WEIGHT CONCRETE WITH COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
5. MIX DESIGNS, INCLUDING WATER CEMENT RATIOS AND SLUMPS, SHALL BE PREPARED IN ACCORDANCE WITH MOST CURRENT ACI 301 CHAPTER 3, EXCEPT WHERE NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS. CEMENT SHALL COMFORM TO ASTM C 150 TYPE 1 OR AT CONTRACTOR'S OPTION, ASTM C 595 TYPE IP WHERE FLY ASH IS PERMITTED. NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C 33 AGGREGATE WITH MAXIMUM UNIT WEIGHT OF 150 PCF AND LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C 330 AGGREGATE. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED IN ANY CONCRETE.

   AGGREGATE SIZES SHALL BE:
   I. FORMED CONCRETE ELEMENTS, U.N.O. .... #67 STONE (3/4" MAX)
   II. GRADE SLABS AND EARTH FORMED ELEMENTS.......... #57 STONE (1" MAX)
   III. COARSE MASONRY GROUT REQUIRED .... #67 STONE (3/4" MAX)
   IV. FINE MASONRY GROUT REQUIRED .... #8 STONE (3/8" MAX)

6. WATER REDUCING ADMIXTURE SHALL BE USED IN ALL CONCRETE.
7. AIR ENTRAINING ADMIXTURE IN ACCORDANCE WITH ACI 301-84 TABLE 3.4.1. SHALL BE USED IN ALL CONCRETE EXPOSED TO FREEZING AND THAWING DURING CONSTRUCTION OR SERVICE CONDITIONS.
8. WATER/CEMENT RATIO SHALL NOT EXCEED 0.45 FOR ANY CONCRETE SUBJECTED TO FREEZING/THAWING.
9. ALL PUMPED CONCRETE SHALL HAVE A WATER/CEMENT RATIO LESS THAN 0.45 AND SHALL CONTAIN A HIGH RANGE WATER REDUCING ADMIXTURE (SUPERPLASTICIZER).
10. IN NO CASE SHALL A WATER/CEMENT RATIOS EXCEED THE FOLLOWING:
    I. ALL FOUNDATION CONCRETE fc 3000 psi.......... 0.55 MAX. W/C RATIO
    II. EXTERIOR PAVING CONCRETE fc 3500 psi.......... 0.50 MAX. W/C RATIO
    III. ALL EXPOSED C.I.P. WATERTABLE, PIERS, ETC... fc 3500 psi.......... 0.45 MAX. W/C RATIO
    IIII. SLABS ON GRADE fc 3000 psi.......... 0.45 MAX. W/C RATIO
11. LIQUID MEMBRANE CURING COMPOUND WITH A MINIMUM 30% SOLIDS CONTENT SHALL BE APPLIED WITHIN TWO (2) HOURS AFTER COMPLETION OF FINISHING TO ALL CONCRETE FLATWORK AND WALLS, U.N.O., OTHER THAN FOOTINGS AND GRADE BEAMS.
12. FLOORS IN AREAS RECEIVING QUARRY TILE, CERAMIC TILE AND LIQUID FLOOR HARDENER SHALL BE CURED WITH DISSIPATING LIQUID MEMBRANE CURING COMPOUND OR WET CURED BY USE OF MOISTURE RETAINING COVER. DISSIPATING CURING COMPOUND SHALL BE THOROUGHLY BROOMED AND WASHED OFF PRIOR TO APPLICATION OF FLOOR FINISH.
13. USE A NON-CORROSIVE, NON-CHLORIDE ACCELERATING ADMIXTURE IN CONCRETE EXPOSED TO TEMPERATURES BELOW 40 DEGREES. UNIFORMLY HEAT THE WATER AND AGGREGATES TO A TEMPERATURE OF NOT LESS THAN 50 DEGREES. PLACE AND CURE CONCRETE IN ACCORDANCE WITH ACI 306.
14. ALL CONSTRUCTION JOINTS SHOWN ON THE DRAWINGS SHALL BE INCORPORATED INTO THE STRUCTURE UNLESS THEIR ELIMINATION IS APPROVED BY THE STRUCTURAL ENGINEER.
15. REINFORCING IN ALL ABUTTING CONCRETE, INCLUDING FOOTINGS, SHALL BE CONTINUOUS THROUGH OR AROUND ALL CORNERS OR INTERSECTIONS. DOWELS OR SPLICES SHALL BE EQUAL IN SIZE AND SPACING TO THE REINFORCING IN THE ABUTTING MEMBERS.
16. REFER TO ARCHITECTURAL DRAWINGS FOR DOOR AND WINDOW OPENINGS, DRIPS, REGLETS, WASHES, MASONRY ANCHORS, BRICK LEDGE ELEVATIONS, SLAB DEPRESSIONS AND MISCELLANEOUS EMBEDDED PLATES, BOLTS, ANCHORS, ANGLES, ETC.
17. FORMS FOR ROUND COLUMNS SHALL BE ONE PIECE FIBERGLASS FORM TO PRODUCE SMOOTH FINISH ON EXPOSED COLUMNS.
18. REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE FINISHES. WHERE FINISH IS NOT SPECIFIED, CONFORM TO REQUIREMENTS OF ACI 301.
19. BASE PLATES, ANCHOR RODS, SUPPORT ANGLES AND OTHER STEEL EXPOSED TO EARTH OR GRANULAR FILL SHALL BE COVERED WITH A MINIMUM OF 3" OF CONCRETE.
20. FINISHING TOLERANCE SHALL BE WITHIN CLASS B IN ACCORDANCE WITH ACI 301 AND CONSIDERATION SHALL BE GIVEN TO SEQUENCING OF CONCRETE PLACEMENT TO FACILIATE CONTROL OF FINISH ELEVATIONS.
21. NON-SHRINK GROUT SHALL BE PRE-MIXED, NON-CORROSIVE, NON-METALLIC, NON-STAINING CONTAINING SILICA SANDS, PORTLAND CEMENT, SHRINKAGE COMPENSATING AND WATER REDUCING AGENTS. PRODUCTS SHALL ONLY REQUIRE THE ADDITION OF WATER. MINIMUM COMPRESSIVE STRENGTH SHALL BE 5000 PSI AFTER ONE DAY AND 7000 PSI AFTER 28 DAYS. GROUT SHALL BE FREE OF GAS PRODUCING OR AIR RELEASING AND OXIDIZING AGENTS AND CONTAIN NO CORROSIVE IRON, ALUMINUM OR GYPSUM.
22. PROVIDE CONCRETE GROUT - NOT MORTAR - FOR REINFORCING MASONRY LINTEL AND BOND BEAMS WHERE INDICATED ON DRAWINGS OR AS SCHEDULED.
23. TOLERANCE FOR ANCHOR RODS AND OTHER EMBEDDED ITEMS SHALL BE PER THE AISC CODE OF STANDARD PRACTICE SECTION 7.5.
24. UNLESS OTHERWISE SHOWN IN THE ARCHITECTURAL DRAWINGS, PROVIDE 3/4" CHAMFERS AT ALL COLUMN, WALL, SLAB, OR BEAM EDGES THAT ARE EXPOSED TO VIEW IN THE FINISHED STRUCTURE.

BRICK VENEER - STEEL STUDWALLS:

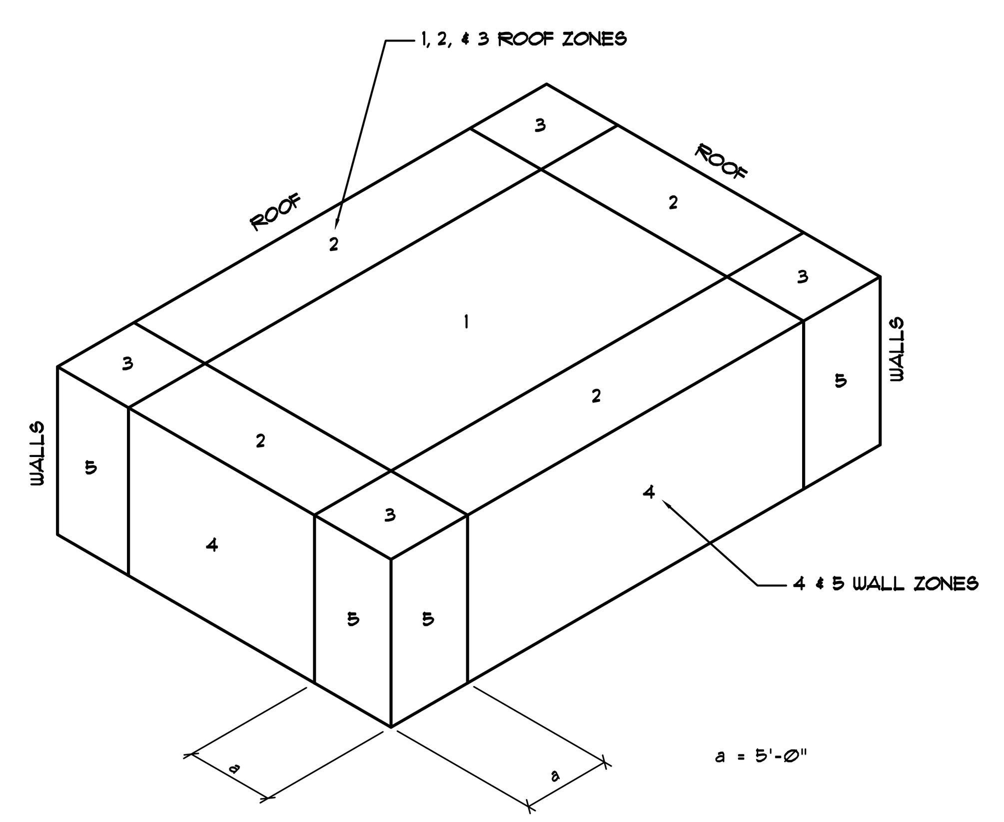
1. AIR SPACE:
   a. 2 in (51 mm) MINIMUM AIR SPACE RECOMMENDED ± 1 in (24.5 mm) MINIMUM AIR SPACE REQUIRED.
   b. 4 1/2 in (114 mm) MAXIMUM DISTANCE REQUIRED BETWEEN BACK OF BRICK VENEER AND STEEL FRAMING UNLESS ANCHORS ARE RATIONALLY DESIGNED.
2. FLASHING:
   a. DO NOT STOP FLASHING BEHIND FACE OF THE BRICKWORK.
   b. PLACE FLASHING AT ALL POINTS WHERE AIR SPACE IS INTERRUPTED.
   c. EXTEND FLASHING VERTICALLY UP THE BACKING TO 8 in (203 mm) MINIMUM HEIGHT.
   d. LAP FLASHING 4 in (102 mm) MINIMUM HEIGHT UNDER WATER-RESISTANT BARRIER OR BEHIND SHEATHING ABOVE GRADE.
   e. INSTALL BASE FLASHING MINIMUM 6 in (152 mm) ABOVE GRADE.
   f. TURN UP FLASHING ENDS INTO HEAD JOINT A MINIMUM OF 1 in (25.4 mm) FOR FORM END DAM.
3. WEEPS:
   a. OPEN HEAD JOINT WEEPS SPACED AT NO MORE THAN 24 in (610 mm) O.C. RECOMMENDED.
   b. MOST BUILDING CODES PERMIT WEEPS NO LESS THAN 3/16" in (4.8 mm) DIAMETER AND SPACED NO MORE THAN 33 in (838 mm) O.C.
   c. WICK AND TUBE WEEP SPACING RECOMMENDED AT NO MORE THAN 16 in (406 mm) O.C.
4. ANCHORS:
   a. CORRUGATED ANCHORS NOT PERMITTED WITH STEEL STUD BLOCKING.
   b. MINIMUM W1.7 (9 gage) ADJUSTABLE WIRE ANCHORS, HOT-DIPPED GALVANIZED, TWO PIECE PER ASTM A153 CLASS B-2.
   c. VERTICAL SPACING: MAXIMUM 16 in (406 mm) O.C.
   d. HORIZONTAL SPACING: MAXIMUM 24 in (610 mm) O.C.
   e. SECURELY ATTACH ANCHORS TO THE STEEL STUDS THROUGH THE SHEATHING, NOT THE SHEATHING ALONE.
5. SHELF ANGLES AND LINTELS:
   a. SHELF ANGLES LOCATED ABOVE THE HEIGHT LIMIT MAY SUPPORT NO MORE THAN 1 STORY OF BRICK.
   b. SIZE HORIZONTAL LEG OF ALL SHELF ANGLES AND LINTELS TO PROVIDE A MINIMUM BEARING OF 2/3 THICKNESS OF THE BRICK WYTHE.
6. SHEATHING:
   a. EXTERIOR GRADE GYPSUM SHEATHING OR OSB OR GLASS FIBER MAT-FACED SHEATHING OR CEMENT BOARD, MINIMUM 1/2 in (12.7 mm) THICK.
7. WATER-RESISTANT BARRIER:
   a. WATER-RESISTANT BARRIERS INCLUDE 15 ASPHALT FELT, BUILDING PAPER, QUALIFYING HIGH-DENSITY POLYETHYLENE OR POLYPROPYLENE PLASTICS (HOUSEWRAPS).
   b. INSTALL WATER-RESISTANT BARRIER OVER SHEATHING.
   c. SEAL WATER-RESISTANT SHEATHING PER MANUFACTURER TO PERFORM AS WATER-RESISTANT BARRIER.
   d. SHIP LAP WATER-RESISTANT BARRIER PIECES MINIMUM 6 in (152 mm).
8. STEEL STUDS:
   a. GALVANIZED STEEL STUDS WITH MINIMUM G-90 COATING.
   b. RESTRICT ALLOWABLE OUT-OF-PLANE DEFLECTION OF STEEL STUDS TO L/600 USING SERVICE LEVEL LOADS.
   c. MINIMUM 0.043 in (18 gage ± 1.09 mm) STUDS FOR EXTERIOR WALLS.
   d. DO NOT FIELD WELD STEEL STUDS.
9. MORTAR:
   a. COMPLY WITH ASTM C270.
   b. TYPE N RECOMMENDED ± TYPE S ALTERNATE.
10. EXPANSION JOINTS:
    a. PROVIDE VERTICAL AND HORIZONTAL EXPANSION JOINTS THROUGH BRICK VENEER.

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

WIDE FLANGE SHAPES	ASTM A992, 50-65 KSI
TUBULAR SHAPES	ASTM A500, GRADE B, 46 KSI
ANGLES, PLATES, AND CHANNELS	ASTM A36, 36 KSI
STEEL PIPE	ASTM A53
MISCELLANEOUS	ASTM A36

2. ALL SHOP AND FIELD WELDING SHALL BE BY A CERTIFIED WELDER AND SHALL CONFORM TO AWS STANDARD D1.1.
3. ALL STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE AS MODIFIED IN THESE NOTES AND THE PROJECT SPECIFICATIONS.
4. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION.
5. FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF CONNECTIONS NOT DESIGNED ON THE STRUCTURAL DRAWINGS. FOR THE PURPOSE OF CONNECTION DESIGN, FABRICATOR SHALL RETAIN A PROFESSIONAL ENGINEER.
   a. GENERALLY, CONNECTIONS SHOWN ON THE DRAWINGS ARE SCHEMATIC AND ARE INTENDED TO SHOW THE RELATIONSHIP OF THE MEMBERS.
   b. MEMBER FORCES AND REACTIONS SHOWN HAVE BEEN REDUCED IN CONFORMANCE TO CODE PROVISIONS RELATED TO COMBINATIONS OF LOADS THAT INCLUDE WIND AND SEISMIC FORCES. NO FURTHER REDUCTIONS IN FORCES OR INCREASES IN ALLOWABLE STRESSES ARE PERMITTED.
   c. CONNECTIONS MAY BE BOLTED OR WELDED, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
   d. SLIP CRITICAL CONNECTIONS WITH A325SC BOLTS SHALL BE USED IN ALL BOLTED MOMENT PLATE CONNECTIONS. OVERSIZED OR LONG-SLOTTED HOLES ARE PERMITTED.
   e. BEARING TYPE CONNECTIONS WITH A325N BOLTS SHALL BE USED FOR ALL OTHER BOLTED CONNECTIONS. OVERSIZED AND LONG-SLOTTED HOLES ARE NOT PERMITTED UNLESS OTHERWISE NOTED. IN SINGLE TAB PLATE CONNECTIONS ONLY BEARING TYPE FASTENERS ARE PERMITTED, FASTENERS SHALL NOT BE TORQUED, AND SHORT SLOTTED HOLES ARE REQUIRED.
   f. ANCHOR RODS OR OTHER RODS, WHERE INDICATED, SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE NOTED.
   g. PROTRUDING BOLT HEADS, SHAFTS OR NUTS SHALL NOT EXTEND NOR PROHIBIT THE APPLICATION OF ARCHITECTURAL FINISHES OR PLACEMENT OF STEEL DECK AT ITS CORRECT LOCATION AND ELEVATION.
   h. CONNECTION DESIGNER IS RESPONSIBLE FOR VERIFYING THE AXIAL CAPACITY AFTER A SECTION IS REDUCED FOR BOLT HOLES. MEMBER SIZE MAY BE INCREASED OR PLATES ADDED TO MAINTAIN REQUIRED CAPACITY.
   i. SHOP DRAWINGS SHALL INDICATE THE TYPE OF BOLT USED IN EACH CONNECTION, ALLOWABLE VALUES FOR THE VARIOUS BOLT TYPES AND CAPACITY OF EACH CONNECTION SHOWN.
   j. SHOP DRAWINGS SHALL INDICATE WELD TYPE, REQUIRED ELECTRODES AND CAPACITY FOR EACH CONNECTION DETAILED ON THE SHOP DRAWINGS.
6. ELECTRODES FOR WELDING SHALL COMPLY WITH THE REQUIREMENTS OF AWS D1.1 TABLE 4.1.1.
7. SPLICING OF STEEL MEMBERS, UNLESS SHOWN ON THE DRAWINGS, IS PROHIBITED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER.
8. NO FINAL BOLTING OR WELDING SHALL BE PERFORMED UNTIL AS MUCH OF THE STRUCTURE AS WILL BE STIFFENED THEREBY HAS BEEN PROPERLY ALIGNED.
9. MINIMUM PLATE THICKNESS SHALL BE 1/4", MINIMUM BOLT DIAMETER SHALL BE 3/4", MINIMUM SHOP WELD SHALL BE 3/16" FILLET, AND MINIMUM FIELD WELD SHALL BE 1/4" FILLET UNLESS OTHERWISE NOTED.
10. ALL RE-ENTRANT CORNERS (SUCH AS COPES AND BLOCKS) SHALL BE CUT AND SHAPED NOTCH FREE WITH A RADIUS OF AT LEAST 1/2".
11. FIELD USE OF GAS CUTTING TORCHES IS PROHIBITED FOR CORRECTING FABRICATION ERRORS IN PRIMARY STRUCTURAL FRAMING.
12. STEEL DECK SHALL BE SECURELY ATTACHED TO SUPPORTING MEMBERS AS DETAILED.
13. FABRICATE ALL BEAMS WITH MILL CAMBERS UP.



WIND COMPONENTS & CLADDING ZONE DIAGRAMS

COMPONENTS AND CLADDING DESIGN WIND PRESSURES LBS/SQ. FT. (a = EDGE CORNER DISTANCE	
EFFECTIVE WIND AREA / ZONE	10 (SQ. FT.)
WALL (4)	+ 26.56 / - 28.77
WALL (5)	+ 26.56 / - 35.41
ROOF (1)	+ 16.00 / - 29.01
ROOF (2)	+ 26.56 / - 48.69
ROOF (3)	+ 26.56 / - 48.69
PARAPET WALL (4)	+ 66.39 / - 46.47
PARAPET WALL (5)	+ 66.39 / - 53.11

V_{ULT} PRESSURE SHOWN

BETCO, Inc.
228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: BUILDING NOTES
DRAWING NUMBER: CS2

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: Ample Storage
Address: Erwin NC Zip Code 28339
Owner/Authorized Agent: Guy Lampe Phone # (919) 934-3041 E-Mail:
Owned By: Private
Code Enforcement Jurisdiction: City

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural				( )	
Civil	CMS Engineering	Patty Hildereth	37410	(919)833-0830	
Electrical	Cruse & Associates, PA	Randy Cruse	18909	(910) 892-4429	rcruse@cruseassociates.com
Fire Alarm				( )	
Plumbing				( )	
Mechanical	Cruse & Associates, PA	Randy Cruse	18909	(910) 892-4429	rcruse@cruseassociates.com
Sprinkler-Standpipe				( )	
Structural	S.E. Consultants	Steven W. Schaub	29129	(480) 946-2010	sws@seconsultants.com
Retaining Walls >5' High				( )	
Other				( )	

("Other" should include firms and individuals such as truss, precast, pre-engineered, interior designers, etc.)

2018 NC BUILDING CODE: New Building

2018 NC EXISTING BUILDING CODE: N/A N/A N/A
CONSTRUCTED: (date) ______ **CURRENT OCCUPANCY(S)** (Ch. 3): ______
RENOVATED: (date) ______ **PROPOSED OCCUPANCY(S)** (Ch. 3): ______

OCCUPANCY CATEGORY (Table 1604.5): **Current:** N/A **Proposed:** I

BASIC BUILDING DATA
Construction Type: II-B
Sprinklers: No N/A
Standpipes: No
Primary Fire District: Select one **Flood Hazard Area:** No
Special Inspections Required: No

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
Building A		24000	24000
Building B		2400	2400
Building D		17600	17600
Building E		5600	5600
Building F		6600	6600
Building G		24000	24000
TOTAL		80200	80200

ALLOWABLE AREA

Primary Occupancy Classification(s): Storage - S-1 N/A N/A N/A N/A N/A

Accessory Occupancy Classification(s): ______
Incidental Uses (Table 509): ______
Special Uses (Chapter 4 – List Code Sections): ______
Special Provisions: (Chapter 5 – List Code Sections): ______
Mixed Occupancy: No Separation: Select one Exception: ______
Select one

Actual Area of Occupancy A / Allowable Area of Occupancy A + *Actual Area of Occupancy B / Allowable Area of Occupancy B* ≤ 1

______ + ______ + …… = ______ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1,5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,3]
Bldg 1	S-1	24000	17500	0	17500
Bldg 2	S-1	2400	17500	0	17500
Bldg 3	S-1	17600	17500	0	17500
Bldg 4	S-1	5600	17500	0	17500
Bldg 5	S-1	5600	17500	0	17500
Bldg 6	S-1	2400	17500	0	17500

[1] Frontage area increases from Section 506.2 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = ______ (F)
b. Total Building Perimeter = ______ (P)
c. Ratio (F/P) = ______ (F/P)
d. W = Minimum width of public way = ______ (W)
e. Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30$ = ______ (%)

[2] Unlimited area applicable under conditions of Section 507.
[3] Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2).
[4] The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
[5] Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE
Building Height in Feet (Table 504.3)	55 ft	10 ft typ, 20ft max	
Building Height in Stories (Table 504.4)	2	1	

[1] Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ * REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses		NC					
Bearing Walls							
Exterior	>= 10 ft						
North	>= 10 ft						
East	>= 10 ft						
West	>= 10 ft						
South	>= 10 ft						
Interior							
Nonbearing Walls and Partitions	N/A						
Exterior walls							
North	N/A						
East	N/A						
West	N/A						
South	N/A						
Interior walls and partitions	N/A						
Floor Construction Including supporting beams and joists	N/A						
Floor Ceiling Assembly	N/A						
Columns Supporting Floors							
Roof Construction, including supporting beams and joists							
Roof Ceiling Assembly	N/A						
Columns Supporting Roof	N/A						
Shaft Enclosures - Exit	N/A						
Shaft Enclosures - Other	N/A						
Corridor Separation	N/A						
Occupancy/Fire Barrier Separation		3 hr		CS4	UL 419		
Party/Fire Wall Separation	N/A						
Smoke Barrier Separation	N/A						
Smoke Partition	N/A						
Tenant/Dwelling Unit/ Sleeping Unit Separation	N/A						
Incidental Use Separation	N/A						

* Indicate section number permitting reduction NC=Non-combustible

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: Yes
Exit Signs: Yes
Fire Alarm: No
Smoke Detection Systems: No
Carbon Monoxide Detection: No

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: LS-1 thru LS-4

☒ Fire and/or smoke rated wall locations (Chapter 7)

☒ Assumed and real property line locations (if not on the site plan)
☒ Exterior wall opening area with respect to distance to assumed property lines (705.8)
☒ Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
☒ Occupant loads for each area
☒ Exit access travel distances (1017)
☒ Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
☒ Dead end lengths (1020.4)
☒ Clear exit widths for each exit door
☒ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
☒ Actual occupant load for each exit door
☒ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
☒ Location of doors with panic hardware (1010.1.10)
☒ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
☒ Location of doors with electromagnetic egress locks (1010.1.9.9)
☒ Location of doors equipped with hold-open devices
☒ Location of emergency escape windows (1030)
☒ The square footage of each fire area (202)
☒ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
☐ Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS N/A
(SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING N/A
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED			TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	
TOTAL						

PLUMBING FIXTURE REQUIREMENTS N/A
(TABLE 2902.1)

USE		WATERCLOSETS			URINALS	LAVATORIES			SHOWERS /TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE	UNISEX		MALE	FEMALE	UNISEX		REGULAR	ACCESSIBLE
SPACE	EXIST'G										
	NEW										
	REQ'D										

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

ENERGY SUMMARY

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: No

Exempt Building: Yes Provide code or statutory reference: N.C.G.S 143-138

Climate Zone: Select one

Method of Compliance: Select one
(If "Other" specify source here)______

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: ______
U-Value of total assembly: ______
R-Value of insulation: ______
Skylights in each assembly: ______
U-Value of skylight: ______
total square footage of skylights in each assembly: ______

Exterior Walls (each assembly)
Description of assembly: ______
U-Value of total assembly: ______
R-Value of insulation: ______
Openings (windows or doors with glazing)
U-Value of assembly: ______
Solar heat gain coefficient: ______
projection factor: ______
Door R-Values: ______

Walls below grade (each assembly)
Description of assembly: ______
U-Value of total assembly: ______
R-Value of insulation: ______

Floors over unconditioned space (each assembly)
Description of assembly: ______
U-Value of total assembly: ______
R-Value of insulation: ______

Floors slab on grade
Description of assembly: ______
U-Value of total assembly: ______
R-Value of insulation: ______
Horizontal/vertical requirement: ______
slab heated: ______

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) 0.80
Seismic (I_E) 1.0

Live Loads: Roof 20 psf
Mezzanine N/A psf
Floor 125 psf

Ground Snow Load: 10 psf

Wind Load: Design Wind Speed V(ultimate)= 119 mph (ASCE 7-10)
Exposure Category B
Wind Base Shear (MWFRS):
Bldg A; Vx=22.7 k Vy=408 k
Bldg B; Vx=6.7 k Vy=42.7 k
Bldg D; Vx=17.9 k Vy=302 k
Bldg E; Vx=11.5 k Vy=100 k
Bldg F; Vx=2.7 k Vy=42 k
Bldg G; Vx=16.3 k Vy=408 k

SEISMIC DESIGN CATEGORY: C

Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) I
Spectral Response Acceleration S_S =18.2 %g S_1 =8.5 %g
Site Classification (ASCE 7-10) D
Data Source: Presumptive
Basic structural system Building Frame
Seismic Base Shear:
Bldg A; Vx=3.360 k Vy=3.360 k
Bldg B; Vx=0.336 k Vy=0.336 k
Bldg D; Vx=2.464 k Vy=2.464 k
Bldg E; Vx=0.784 k Vy=0.784 k
Bldg F; Vx=0.924 k Vy=0.924 k
Bldg G; Vx=0.988 k Vy=0.988 k

Analysis Procedure: Equivalent Lateral Force
Architectural, Mechanical, Components anchored? Yes

LATERAL DESIGN CONTROL: Wind

SOIL BEARING CAPACITIES:
Presumptive Bearing Capicity 3000 psf
Pile size, type, and capacity ______

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

BUILDING "A"
MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone **4A – Harnett County, NC**
winter dry bulb: _16 Deg. F._
summer dry bulb:_93 Deg. F.__

Interior design conditions

winter dry bulb: _59 Deg F.__
summer dry bulb:_80 Deg F.___
relative humidity: _55%___

Building heating load: 160.0 MBH

Building cooling load: 22.0 Tons

Mechanical Spacing Conditioning System
Unitary
description of unit: SEE MECHANICAL PLANS___
heating efficiency: _8.5 HSPF_
cooling efficiency: _14.5 SEER__
size category of unit: _SEE MECHANICAL PLANS_
Boiler
Size category. If oversized, state reason.: _N/A___
Chiller
Size category. If oversized, state reason.: _N/A____

List equipment efficiencies: SEE MECHANICAL PLANS FOR SCHEDULE_

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

BUILDING "D"
MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone **4A – Harnett County, NC**
winter dry bulb: _16 Deg. F._
summer dry bulb:_93 Deg. F.__

Interior design conditions

winter dry bulb: _59 Deg F.__
summer dry bulb:_80 Deg F.___
relative humidity: _55%___

Building heating load: 135.4 MBH

Building cooling load: 17.0 Tons

Mechanical Spacing Conditioning System
Unitary
description of unit: SEE MECHANICAL PLANS___
heating efficiency: _8.5 HSPF_
cooling efficiency: _14.0 SEER__
size category of unit: _SEE MECHANICAL PLANS_
Boiler
Size category. If oversized, state reason.: _N/A___
Chiller
Size category. If oversized, state reason.: _N/A____

List equipment efficiencies: SEE MECHANICAL PLANS FOR SCHEDULE_

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

BUILDING "G"
MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone **4A – Harnett County, NC**
winter dry bulb: _16 Deg. F._
summer dry bulb:_93 Deg. F.__

Interior design conditions

winter dry bulb: _59 Deg F.__
summer dry bulb:_80 Deg F.___
relative humidity: _55%___

Building heating load: 157 MBH

Building cooling load: 20.0 Tons

Mechanical Spacing Conditioning System
Unitary
description of unit: SEE MECHANICAL PLANS___
heating efficiency: _9.0 HSPF_
cooling efficiency: _14.8 SEER__
size category of unit: _SEE MECHANICAL PLANS_
Boiler
Size category. If oversized, state reason.: _N/A___
Chiller
Size category. If oversized, state reason.: _N/A____

List equipment efficiencies: SEE MECHANICAL PLANS FOR SCHEDULE_

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

"OFFICE"
MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone **4A – Harnett County, NC**
winter dry bulb: _16 Deg. F._
summer dry bulb:_93 Deg. F.__

Interior design conditions

winter dry bulb: _70 Deg F.__

summer dry bulb:_75 Deg F.___
relative humidity: _55%___

Building heating load: 12.6 MBH

Building cooling load: 3.0 Tons

Mechanical Spacing Conditioning System
Unitary
description of unit: SEE MECHANICAL PLANS___
heating efficiency: _9.5 HSPF_
cooling efficiency: _16.0 SEER__
size category of unit: _SEE MECHANICAL PLANS_
Boiler
Size category. If oversized, state reason.: _N/A___
Chiller
Size category. If oversized, state reason.: _N/A____

List equipment efficiencies: SEE MECHANICAL PLANS FOR SCHEDULE_

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT **SEE ELECTRICAL DRAWINGS FOR RISER DIAGRAM AND PANEL SCHEDULE**

Method of Compliance: Energy Code - Prescriptive

Lighting schedule (each fixture type) **SEE SCHEDULE**
lamp type required in fixture " "
number of lamps in fixture " "
ballast type used in the fixture " "
number of ballasts in fixture " "
total wattage per fixture " "
total interior wattage specified vs. allowed (whole building or space by space) " "
total exterior wattage specified vs. allowed " "

Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
☐ C406.2 More Efficient HVAC Equipment Performance
☒ C406.3 Reduced Lighting Power Density
☐ C406.4 Enhanced Digital Lighting Controls
☐ C406.5 On-Site Renewable Energy
☐ C406.6 Dedicated Outdoor Air System
☐ C406.7 Reduced Energy Use in Service Water Heating

6/6/2024 3:51:33 PM, RELEASE FOR CONSTRUCTION

BETCO, Inc.
228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: APPENDIX B
DRAWING NUMBER: CS3

UL Product iQ™

BXUV.U419 - Fire-resistance Ratings - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

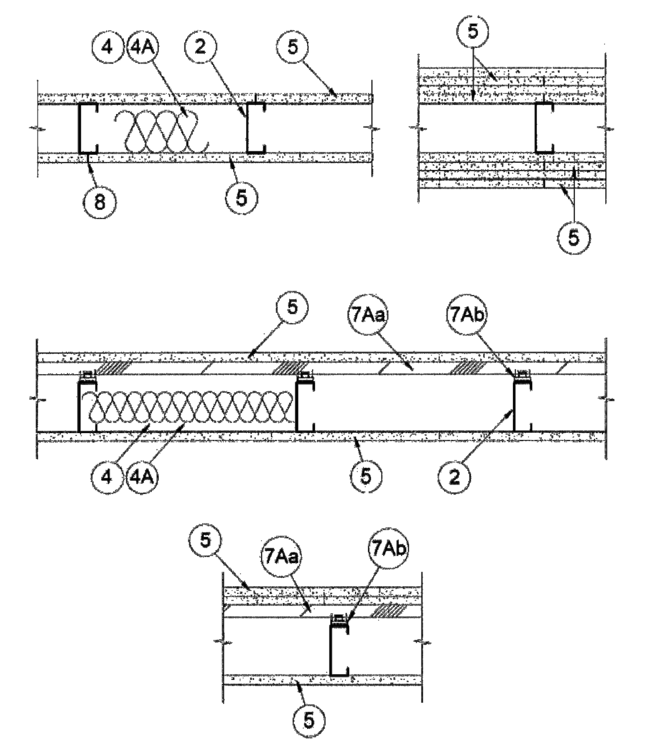
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. U419

December 10, 2020

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5 through 5J)

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2 — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™ Track

CRACO MFG INC — SmartTrack25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track

FUSION BUILDING PRODUCTS — Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper25™ Track

1B. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

FUSION BUILDING PRODUCTS — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. **Framing Members* — Floor and Ceiling Runners —** (Not Shown) — In lieu of Item 1 — Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1D. **Floor and Ceiling Runners —** (Not Shown) — For use with Item 2A — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1E. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1F. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
SUPER STUD BUILDING PRODUCTS — The Edge

1G. **Framing Members* — Floor and Ceiling Runner —** For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.
STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. **Floor and Ceiling Runners —** (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.018 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

FUSION BUILDING PRODUCTS — Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

1I. **Framing Members* — Floor and Ceiling Runners —** (Not Shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

1J. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2I, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

1K. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2J, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1L. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min. 3-1/2 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

1M. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2O, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Wall Track

1N. **Framing Members* — Floor and Ceiling Runners —** Not Shown — As an alternate to Item 1 — For use with Item 2P, proprietary channel shaped runners, min width to accommodate stud size, galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Track

1O. **Framing Members* — Floor and Ceiling Runner —** Not Shown — In lieu of Item 1 — For use with Item 2Q, proprietary channel shaped runners, min width to accommodate stud size, fabricated from min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track

2. **Steel Studs —** Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. **Steel Studs —** (As an alternate to Item 2, For use with Items 5B, 5E, 5H, 5J or Type ULIX) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2B. **Framing Members* - Steel Studs —** (As an alternate to Item 2, For use with Items 5C, 5I or Type ULIX) — Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a 1/2 in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

CRACO MFG INC — SmartStud25™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™

FUSION BUILDING PRODUCTS — Viper25™

IMPERIAL MANUFACTURING GROUP INC — Viper25™

2C. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

FUSION BUILDING PRODUCTS — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2D. **Framing Members* — Steel Studs —** In lieu of Item 2 — Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2E. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) — For use with Items 5F or 5G or 5I or Type ULIX only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

2F. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.
SUPER STUD BUILDING PRODUCTS — The Edge

2G. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height.
STUDCO BUILDING SYSTEMS — CROCSTUD

2H. **Framing Members* — Steel Studs —** (Not Shown, As an alternate to Item 2) — Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C — TRUE-STUD™

2I. **Framing Members* — Steel Studs —**

2J. **Framing Members* — Metal Studs —** Not Shown — In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights

2K. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut

3/8 to 3/4 in. less than assembly height.
EB METAL INC — NITROSTUD

2L. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OLMAR SUPPLY INC — PRIMESTUD

2M. **Framing Members* — Steel Studs —** As an alternate to Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

2N. **Framing Members*— Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min depth 3-1/2 in. and as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.018 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in length than assembly height.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2O. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
RONDO BUILDING SERVICES PTY LTD — Rondo Lipped Wall Stud

2P. **Framing Members* — Steel Studs —** As an alternate to Item 2 — proprietary channel shaped steel studs, min width as indicated under Item 5, min 25 MSG galv steel. Studs to be cut 3/8 to 3/4 in. less in lengths than assembly height. Spaced 24 in. OC max.
OEG BUILDING MATERIALS — OEG Stud

2Q. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1O, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X

3. **Wood Structural Panel Sheathing —** (Optional, For use with Item 5 Only) — (Not Shown) — 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, gypsum panels attached over OSB or plywood panels and fastener lengths for gypsum panels increased by min. 1/2 in.

4. **Batts and Blankets* —** (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4A. **Batts and Blankets* —** (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.
See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

4B. **Fiber, Sprayed* —** (Optional, for use with Type ULIX) Where insulation is required - Spray applied granulated mineral fiber material. The fiber is applied with adhesive at a minimum density of 4.0 pcf to completely fill the wall cavity in accordance with the application instructions supplied with the product. See **Fiber, Sprayed** (CCAZ).
AMERICAN ROCKWOOL MANUFACTURING, LLC — Type Rockwool Premium Plus

5. **Gypsum Board* —** Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) with Type ULIX need not be staggered. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F, 2G, 2O	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Type C and 5/8 in. thick Type SCX

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, ULIX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, **Steel Framing Members***, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.
CGC INC — Type SHX.

UNITED STATES GYPSUM CO — Type FRX-G, SHX.

USG MEXICO S A DE C V — Type SHX.

5B. **Gypsum Board* —** (Not Shown) — As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or 3/4 in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) — Nom 5/8 in. or 3/4 in. may be used as alternate to all 5/8 in. or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12).
RAY-BAR ENGINEERING CORP — Type RB-LBG

5C. **Gypsum Board* —** (For Use With Item 2B) — Rating Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory.
CGC INC — Type SCX, ULIX.

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — Type SCX, SGX, ULIX.

USG BORAL DRYWALL SFZ LLC — Type SCX

USG MEXICO S A DE C V — Type SCX

5D. **Gypsum Board* —** (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only.
CGC INC — Type USGX

UNITED STATES GYPSUM CO — Type USGX

USG BORAL DRYWALL SFZ LLC — Type USGX

USG MEXICO S A DE C V — Type USGX

5E. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5F. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.
THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — Type SCX

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX, ULIX

USG BORAL DRYWALL SFZ LLC — 5/8 in. thick Type SCX, SGX

5G. **Gypsum Board* —** (As an alternate to Item 5) — For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2E	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR;, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX or 3/4 in. thick Types IP-X3 or ULTRACODE

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO — 1/2 in. thick Types C and 5/8 in. thick SCX

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, , FRX-G, IP-AR, IP-X2, IPC-AR, ULIX; 3/4 in. thick Types IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE

5H. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).
MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5I. **Gypsum Board* —** (As an alternate to Item 5) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.
CGC INC — Type ULIX, ULX

UNITED STATES GYPSUM CO — Type ULIX, ULX

USG MEXICO S A DE C V — Type ULX

5J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

6. **Fasteners —** (Not Shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Single layer system with Type ULIX:** 1 in. long, spaced 12 in. OC in the field and perimeter, when panels are applied horizontally or vertically. **Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. **Three-layer systems:** First layer-

1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. **Four-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.

7. **Furring Channels —** (Optional, Not Shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A.

7A. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

7B. **Framing Members* —** (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC — Type Isomax

7C. **Framing Members* —** (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ca) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC — Type GENIECLIP

7D. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of

No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Da) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

7E. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 7Eb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA — Type SonusClip

7F. **Steel Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels —** Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5. Not for use with Item 5A and 5E.

b. **Steel Framing Members* —** Used to attach resilient channels (Item 7Fa) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

7G. **Framing Members* —** (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. or 1-1/2 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A.

b. **Steel Framing Members* —** Used to attach furring channels (Item 7Ga) to studs (Item 2). Clips spaced max. 48 in. OC. Clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips.
CLARKDIETRICH BUILDING SYSTEMS — Type ClarkDietrich Sound Clip

8. **Joint Tape and Compound —** Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

9. **Siding, Brick or Stucco —** (Optional, Not Shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

10. **Caulking and Sealants* —** (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.
UNITED STATES GYPSUM CO — Type AS

11. **Lead Batten Strips —** (Not Shown, For Use With Item 5B) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind vertical joints.

11A. **Lead Batten Strips —** (Not Shown, For Use With Item 5H) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.

12. **Lead Discs or Tabs —** (Not Shown, For Use With Item 5B) — Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

12A. **Lead Discs —** (Not Shown, for use with Item 5H) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

13. **Lead Batten Strips —** (Not Shown, For Use With Item 5E) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5E) and optional at remaining stud locations.

14. **Lead Tabs —** (Not Shown, For Use With Item 5E) — 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5E) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

15. **Barrier Mesh —** (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2020-12-10

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

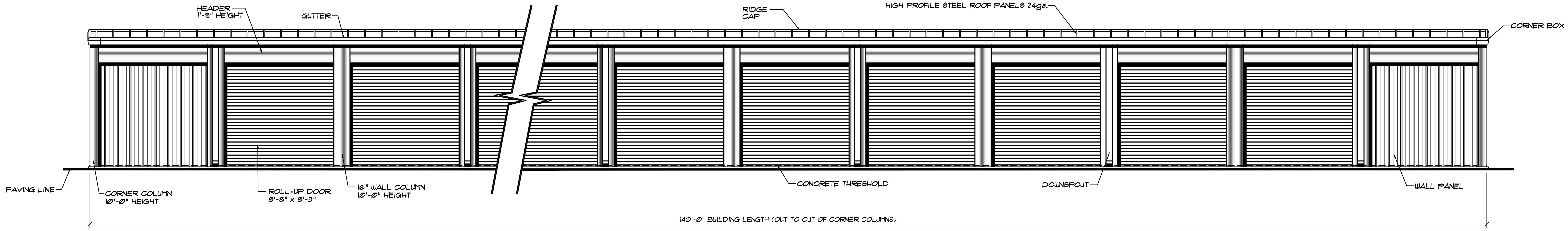
REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

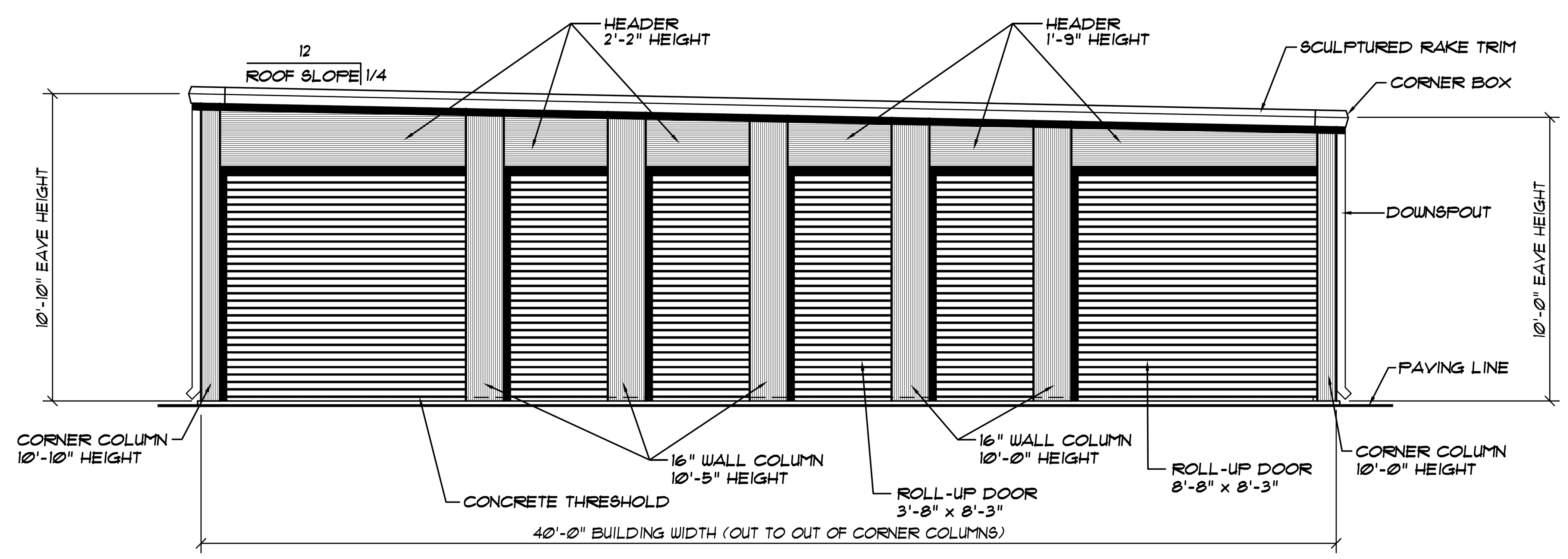
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: UL SPECIFICATION
DRAWING NUMBER: CS4

6/6/2024 3:52:14 PM, RELEASE FOR CONSTRUCTION



A/S1 SIDEWALL ELEVATION . . . BUILDING "E"

SCALE: 1/4" = 1'-0"



B/S1 ENDWALL ELEVATION . . . BUILDING "E"

SCALE: 1/4" = 1'-0"

NOTE:
DOWNSPOUTS LOCATIONS SHOWN FOR ELEVATION PURPOSE ONLY. REFER TO FLOOR PLAN SHEETS FOR LOCATIONS

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

6/6/2024 3:53:19 PM, RELEASE FOR CONSTRUCTION

BETCO, Inc.
228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: ELEVATIONS & NOTES BUILDING "E"
DRAWING NUMBER: S1

6/6/2024 3:54:40 PM, RELEASE FOR CONSTRUCTION

(11) FIRE BARRIER . . . 3 HOUR RATED UL #419 (NON-LOAD BEARING) (SEE SHEET CS4 FOR DESIGN)

- -3 5/8" METAL STUDS @ 24" O.C. - 20ga.
- -3 5/8" CONTINUOUS FLOOR and CEILING TRACK - 20ga (TOP TRACK MUST FOLLOW SLOPE OF ROOF DECK) (SECURE BOTTOM TRACK W/ 7/8" PDF'S AT 24" O.C.)
- -5/8" GYPSUM BOARD (X-RATED) 3 LAYERS EACH SIDE IT MUST BE PLACED SUCH THAT ALL JOINTS ARE VERTICAL (NOT BY BETCO).
- -GYPSUM BOARD (NOT BY BETCO) SHALL BE ATTACHED TO STUDS, FLOOR AND CEILING TRACK USING TYPE "S" SELF-TAPPING SCREWS ALONG EDGES OF BOARD SPACED 8" O.C. AND 12" O.C. IN THE FIELD (NOT BY BETCO).
- -VINYL OR CASE-IN, DRY OR PRE-MIXED JOINT COMPOUND APPLIED IN TWO COATS TO JOINTS SCREW-HEADS. PERFORATED PAPER TAPE, 2" WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS (NOT BY BETCO).

(12) EXTERIOR STUDWALL CONSTRUCTION @ FLAT SLAB:

- -6" METAL STUDS @ 24" O.C. - 20ga
- -6" CONTINUOUS FLOOR AND CEILING TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX
- -3 ROWS CONTINUOUS 20ga. FURRING CHANNELS
- -PRE-PAINTED EXTERIOR 236A WALL PANELS
- -WALL PANEL BASE SUPPORT
- -DRIP CAP (#T60120)
- *-6" (R-19) THICK FIBERGLASS INSULATION
- *-4 MIL POLYETHYLENE VAPOR BARRIER
- *-J-TRIM AT TOP OF LINER PANELS PERPENDICULAR TO ROOF BEAMS
- *-230 LINER PANELS @ INTERIOR (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
- -BLOCK STUDS AT MID-HEIGHT AS SHOWN IN ERC631X

(13) EXTERIOR PARAPET STUDWALL CONSTRUCTION @ BRICK VENEER:

- -6" x 2" FLANGE METAL STUDS @ 24" O.C. - 14ga
- -6" CONTINUOUS FLOOR TRACK - 18ga. (SECURE FLOOR TRACK w/ 3/8" x 3" KB-TZ2 ANCHORS @ 30" O.C.)
- -6" x 3" LEG CONTINUOUS TOP TRACK @ PARAPET - 12ga.
- -DOUBLE STUD AT ENDWALL (TYPICAL AT ALL ROOF BEAM LOCATIONS)
- -HORIZONTAL 136 PANELS AT EXTERIOR
- -BRICK VENEER AND BRICK TIES (NOT BY BETCO)
- *-6" THICK (R-19) FIBERGLASS INSULATION
- *-4 MIL POLYETHYLENE VAPOR BARRIER
- *-J-TRIM AT TOP OF LINER PANELS
- *-230 LINER PANELS @ INTERIOR (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
- -BLOCK STUDS AT 4'-6" O.C. MAX AS SHOWN ON ERC DETAIL A/631
- -PARAPET WALL CAP (NOT BY BETCO)
- -236A PREPAINTED BACK PANELS
- -20ga. FURRING CHANNELS (BACK SIDE ONLY) (2 ROWS)

(14) EXTERIOR STUDWALL CONSTRUCTION @ TOWER:

- -8" x 2 1/2" FLANGE METAL STUDS @ 24" O.C. - 14ga
- -8" x 2" CONTINUOUS FLOOR TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX.
- -8" CEILING TRACK 3" DEEP x 14ga.
- -DOUBLE STUD AT ENDWALL (TYPICAL AT ALL ROOF BEAM LOCATIONS)
- -HORIZONTAL 136 PANELS AT EXTERIOR
- -BRICK VENEER AND BRICK TIES (NOT BY BETCO)
- *-8" THICK (R-25) FIBERGLASS INSULATION
- *-4 MIL POLYETHYLENE VAPOR BARRIER
- *-J-TRIM AT TOP OF LINER PANELS
- *-230 LINER PANELS @ INTERIOR (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
- -BLOCK STUDS AT 4'-6" O.C. MAX AS SHOWN ON ERC DETAIL A/631

(15) LOAD BEARING STUDWALL CONSTRUCTION @ TOWER:

- -8" x 2 1/2" METAL STUDS @ 24" O.C. - 14ga
- -8" x 2" CONTINUOUS FLOOR TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX
- -8" CEILING TRACK 3" DEEP x 14ga.
- *-8" THICK (R-25) FIBERGLASS INSULATION (ABOVE ROOF LINE)
- *-4 MIL POLYETHYLENE VAPOR BARRIER (ABOVE ROOF LINE)
- *-J-TRIM AT TOP OF LINER PANELS
- -HORIZONTAL 136 PANELS AT EXTERIOR (ABOVE ROOF LINE)
- -BRICK VENEER AND BRICK TIES (NOT BY BETCO) (ABOVE ROOF LINE)
- -230 LINER PANELS @ INTERIOR (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
- -BLOCK STUDS AT 4'-6" O.C. MAX AS SHOWN ON ERC631X

(16) LOAD BEARING STUDWALL CONSTRUCTION @ TOWER:

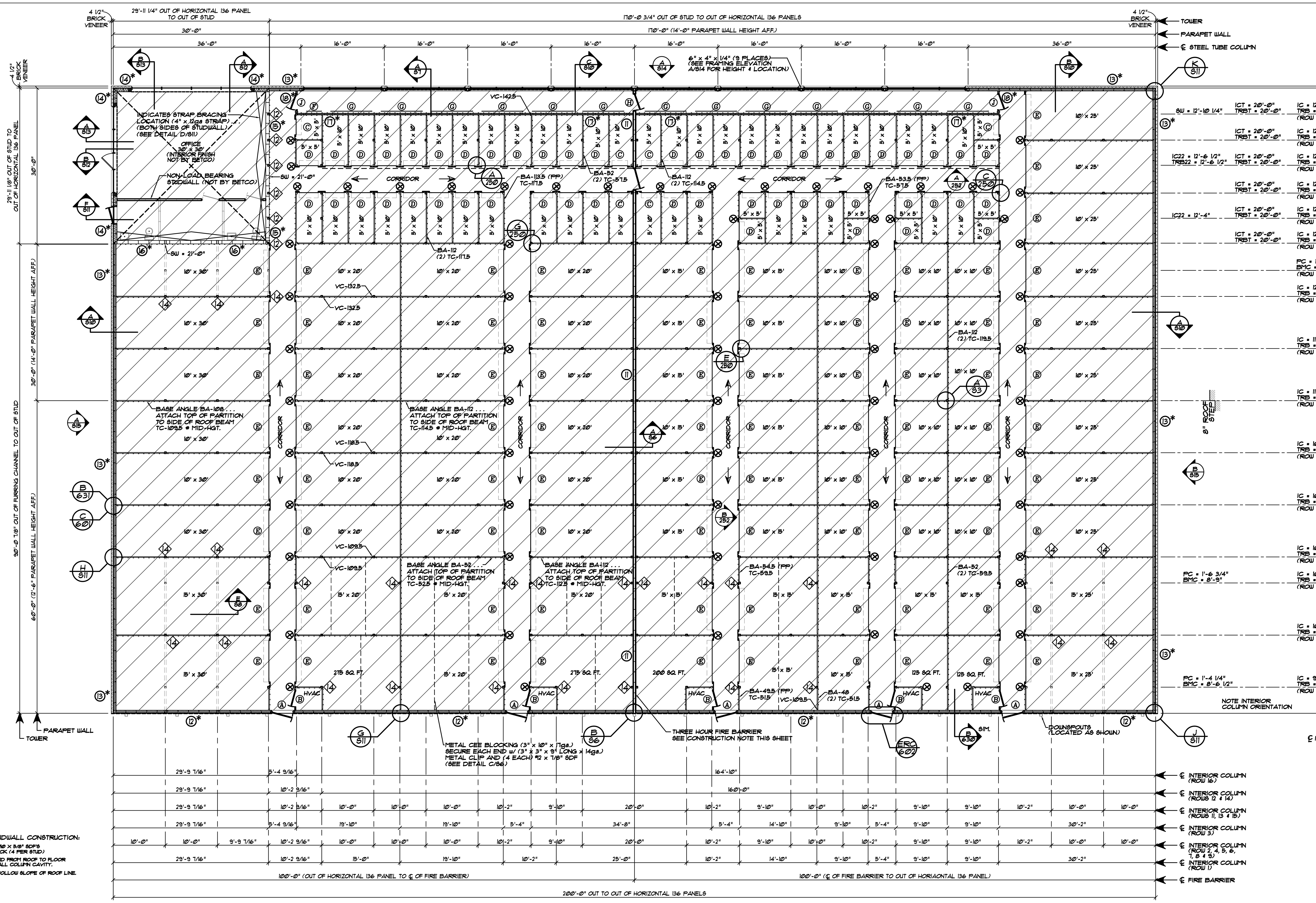
- -8" x 2 1/2" METAL STUDS @ 24" O.C. - 14ga
- -8" x 2" CONTINUOUS FLOOR TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX
- -8" CEILING TRACK 3" DEEP x 14ga.
- *-8" THICK (R-25) FIBERGLASS INSULATION (ABOVE ROOF LINE)
- *-4 MIL POLYETHYLENE VAPOR BARRIER (ABOVE ROOF LINE)
- *-J-TRIM AT TOP OF LINER PANELS
- -HORIZONTAL 136 PANELS AT EXTERIOR (ABOVE ROOF LINE)
- -BRICK VENEER AND BRICK TIES (NOT BY BETCO) (ABOVE ROOF LINE)
- -230 LINER PANELS @ INTERIOR (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
- -BLOCK STUDS AT 4'-6" O.C. MAX AS SHOWN ON ERC631X

(17) LOAD BEARING STUDWALL :

- -3 5/8" METAL STUDS @ 24" O.C. - 20ga
- -3 5/8" CONTINUOUS FLOOR AND CEILING TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX
- -230 LINER PANELS (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
- *-3 1/2" THICK (R-11) FIBERGLASS INSULATION
- *-4 MIL POLYETHYLENE VAPOR BARRIER
- -BLOCK STUDS AT MID-HEIGHT AS SHOWN IN ERC631X

(18) NON-LOAD BEARING STUDWALL :

- -3 5/8" METAL STUDS @ 24" O.C. - 20ga
- -3 5/8" CONTINUOUS FLOOR AND CEILING TRACK - 20ga. (ATTACH BASE TRACK TO CONCRETE FLOOR SLAB WITH 7/8" PDF'S @ 24" O.C.)
- -230 LINER PANELS (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
- -J-TRIM AT TOP OF LINER PANELS PERPENDICULAR TO ROOF BEAMS
- *-3 1/2" THICK (R-11) FIBERGLASS INSULATION
- *-4 MIL POLYETHYLENE VAPOR BARRIER



NOTE: GENERAL STUDWALL CONSTRUCTION:

- A) -ATTACH STUDS W/ #10 x 5/8" SDF'S EACH SIDE OF TRACK (4 PER STUD)
- B) -WALLS MUST EXTEND FROM ROOF TO FLOOR DECK AND INTO WALL COLUMN CAVITY.
- C) -TOP TRACK MUST FOLLOW SLOPE OF ROOF LINE.

TRB = TOP OF ROOF BEAM A.F.F.
IC = INTERIOR COLUMN HEIGHT 3 5/8" x 3 5/8" x 17ga.
TRBT = TOP OF ROOF BEAM A.F.F. @ TOWER
ICT = INTERIOR COLUMN HEIGHT @ TOWER 3 5/8" x 3 5/8" x 12ga.
PC = PONY COLUMN HEIGHT 3 5/8" x 3 5/8" x 17ga.
BMC = BOTTOM OF METAL CEE A.F.F.
SW = STUDWALL HEIGHT A.F.F.
IC22 = INTERIOR 22ga. COLUMN HEIGHT 3 5/8" x 3 5/8" x 22ga.
TRB22 = TOP OF 22ga. ROOF BEAM A.F.F.
BA = BASE ANGLE
TC = TOP CHANNEL
VC = VERTICAL CHANNEL

FLOOR PLAN . . . BUILDING "A"

SCALE: 3/32" = 1'-0"

STUDWALL LEGEND — BUILDING "A"		
INTERIOR STUDWALL / EXTERIOR STUDWALL		
DESCRIPTION	UNINSULATED	INSULATED
(11) FIRE BARRIER . . . 3 HOUR RATES: (NON-LOAD BEARING STUDWALL) (3 5/8" x 20ga. STUDS)	120 L.F.	0 L.F.
(12) EXTERIOR STUDWALL CONSTRUCTION AT FLAT SLAB: (BLOCK @ MID-HGT.) (6" x 20ga. STUDS)	0 L.F.	200 L.F.
(13) EXTERIOR PARAPET STUDWALL CONSTRUCTION @ BRICK VENEER: (BLOCK @ 1/3 POINTS) (6" x 2" FLANGE x 14ga. STUDS)	0 L.F.	380 L.F.
(14) EXTERIOR STUDWALL CONSTRUCTION @ TOWER: (BLOCK @ 1/4 POINTS) (8" x 2 1/2" FLANGE x 14ga. STUDS)	0 L.F.	60 L.F.
(15) LOAD BEARING STUDWALL CONSTRUCTION @ TOWER: (BLOCK @ 1/4 POINTS) (8" x 2 1/2" FLANGE x 14ga. STUDS)	0 L.F.	30 L.F.
(16) LOAD BEARING STUDWALL CONSTRUCTION @ TOWER: (BLOCK @ 1/4 POINTS) (8" x 2 1/2" FLANGE x 14ga. STUDS)	0 L.F.	30 L.F.
(17) LOAD BEARING STUDWALL CONSTRUCTION (3 5/8" x 20ga. STUDS)	0 L.F.	135 L.F.
(18) NON-LOAD BEARING STUDWALL CONSTRUCTION (3 5/8" x 20ga. STUDS)	0 L.F.	10 L.F.

NOTE #1: GYPBOARD AND RELATED FINISH MATERIALS MAY NOT BE PROVIDED BY BETCO – VERIFY WITH CONTRACT.
NOTE #2: SEE BLOCKING DETAIL A/631 ON ERC631X

NOTE:
15ft. ROOF BEAMS ARE 3" x 12" x 12ga. ZEE'S WITH ROOF BLOCKING @ MID-POINT. (SEE DETAIL D/S5)
20ft. ROOF BEAMS ARE 3" x 12" x 12ga. ZEE'S WITH ROOF BLOCKING @ 1/3 POINTS. (SEE DETAIL D/S5)
30ft. ROOF BEAMS AT OFFICE ARE 3" x 12" x 12ga. (55ksi) ZEE'S DESIGNED FOR LATERAL BRACING ONLY.

NOTE TO ERECTOR:
INSTALL SA-2 ANGLE TO 15'-0" & 20'-0" ROOF BEAM AT MID-SPAN. RUN VERTICALLY TO CLIP IN FLOOR TO PROVIDE TEMPORARY BRACING PRIOR TO ROOF INSTALLATION. BRACE WILL PREVENT BEAM TWIST.

NOTES:
- --- 6" ROOF INSULATION (R-19) INCLUDED AT ENTIRE OF BUILDING "D". ADDITIONAL 3" UNFACED INSULATION (R-19 + R-11) INCLUDED AT CLIMATE CONTROLLED AREAS OF BUILDING "A".
- --- 8" WALL INSULATION (R-25) INCLUDED AT BUILDING "A".
- --- 6" WALL INSULATION (R-19) INCLUDED AT BUILDING "A".
- --- 5 1/2" x 6" KICK-OUT DOWNSPOUTS ARE INCLUDED.
- --- CORRIDOR WIDTH WILL BE A MINIMUM OF APPROXIMATELY 56" FROM FACE TO FACE OF DOOR JAMBS.
- --- 5 PANEL SOFFIT SYSTEM INCLUDED AT CORRIDORS.
- --- ATTACH ALL STUDS TO TRACKS WITH #10 x 5/8" SDF (4 PER STUD).
- --- BURGLAR BARS ARE PROVIDED ABOVE INTERIOR ROLL-UP DOORS AS REQUIRED.
- --- INTERIOR DOOR FRAMES AND PARTITIONS AT HALLWAYS ARE PREPAINTED.
- --- ALL PERSONNEL DOORS ARE GLOBAL AND INCLUDE LOCK-OPEN TYPE CLOSERS.
- --- ALL ROLL-UP DOORS ARE BY BETCO & INCLUDE TENSION ADJUSTERS & BEARINGS.
- --- SECURE INTERIOR PARTITION TO INTERIOR COLUMNS WITH (4) #10 x 5/8" SDF'S AS SHOWN ON ERC200X - ERC208X.
- --- INTERIOR DOOR JAMBS INCLUDE PARTITION CLOSURE ANGLES.
- --- NOTE FOR INTERIOR BEARING STUDWALLS: (SECURE BOTTOM TRACK W/ 3/8" x 3" KB-TZ2 ANCHORS (2" MIN. EMBEDMENT) @ 30" O.C. MAXIMUM).
- --- NOTE FOR ALL EXTERIOR STUDWALLS: (SECURE FLOOR TRACK w/ 3/8" x 3" KB-TZ2 ANCHORS (2" MIN. EMBEDMENT) @ 30" O.C. MAXIMUM).

LEGEND:
- (12) 12ga. INTERIOR COLUMN
- (14) 14ga. INTERIOR COLUMN
- (⊗) 22ga. INTERIOR COLUMN
- (- - -) 22 ga. INTERIOR DOOR STRUCTURE
- (hatched) CLIMATE CONTROL

NOTE COLUMN ORIENTATION @ CORRIDORS PARALLEL TO ROOF BEAMS
CORRIDOR

NOTE: SEE ERC602X FOR EXTERIOR SWING DOOR FRAMING IN STUDWALL.

NOTE: ROOF TRUSSES ARE SUPPORTED BY LOAD BEARING STUDWALLS ONLY.

NOTE: SEE ERC602X FOR EXTERIOR SWING DOOR FRAMING IN STUDWALL.

NOTE: BLOCK ALL LOAD-BEARING INTERIOR & EXTERIOR STUDWALLS AS SHOWN ON ERC DETAIL A/631.

NOTE: UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

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Statesville, NC 28625
Limited Engineering License # D-0140

JAMB	ROLL-UP HEADER	SWING DOOR HEADER
8'-6"	18"	16 1/2"

DOOR SCHEDULE		
ID	DOOR SIZE	TYPE
Ⓐ	4'-0" x 7'-0" (4070 – 1) (ERC254X)	SOLID PERSONNEL
Ⓑ	3'-0" x 7'-0"	INTERIOR SWING DOOR WITH LOUVER
Ⓒ	3'-0" x 7'-0"	INTERIOR ROLL-UP
Ⓓ	3'-8" x 7'-0"	INTERIOR ROLL-UP
Ⓔ	8'-0" x 7'-0"	INTERIOR ROLL-UP
Ⓕ	3'-0" x 7'-0"	DUMMY DOOR
Ⓖ	8'-0" x 7'-0"	DUMMY DOOR
Ⓗ	3'-0" x 7'-0" (3070 – 1 – A) (ERC254X)	A-LABEL FIRE DOOR
Ⓙ	3'-0" x 7'-0" (3070 – 2 – G) (ERC254X)	1/2 GLASS PERSONNEL

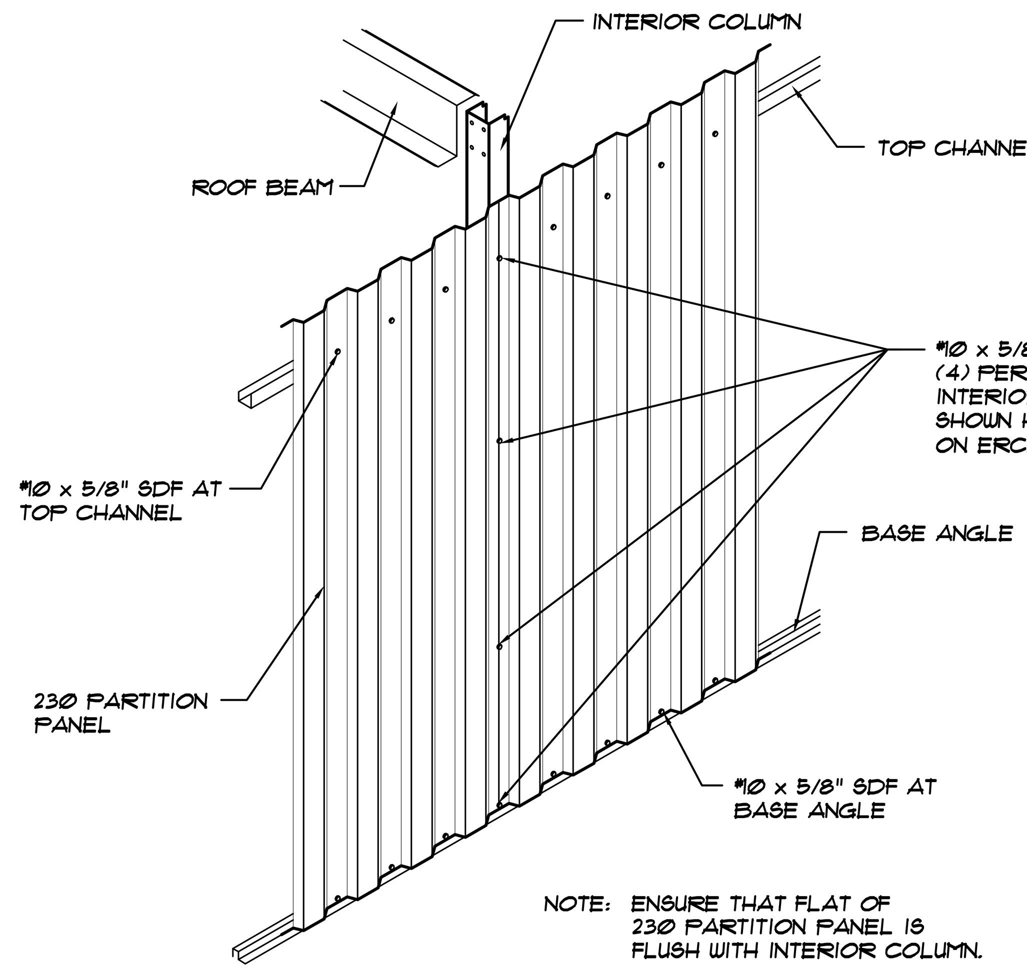
NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

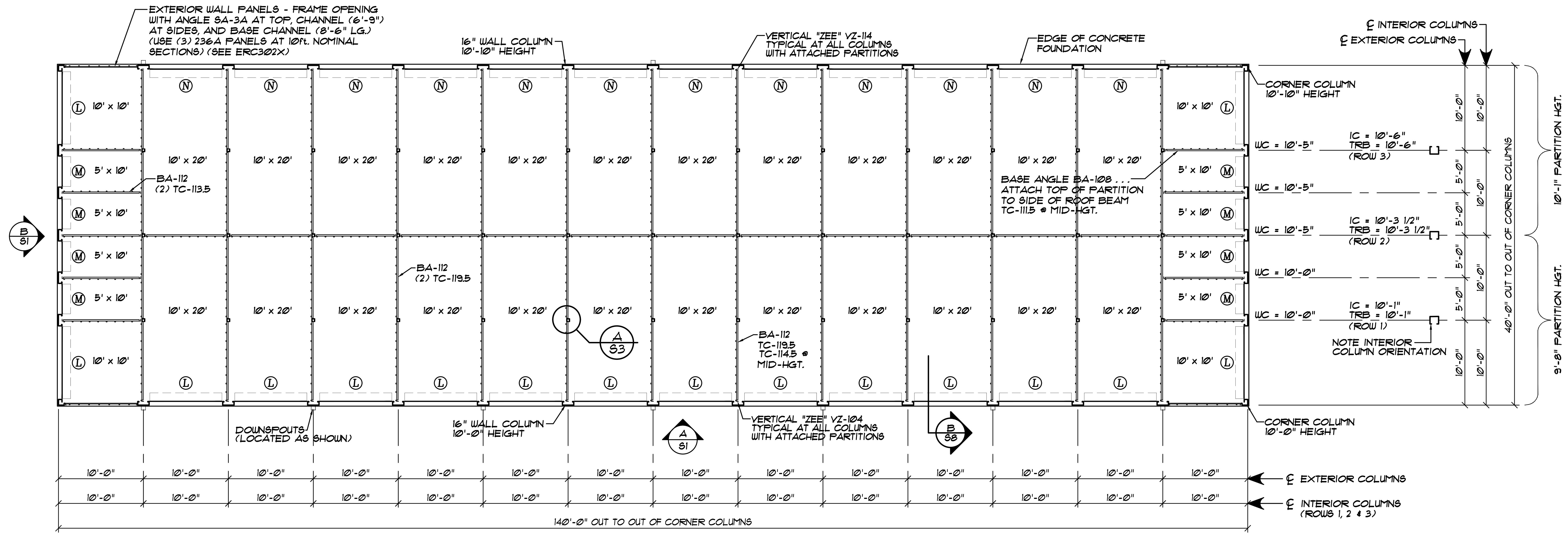
BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654–7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FLOOR PLAN & NOTES BUILDING "A"
DRAWING NUMBER: S2



A/S3 PARTITION ATTACHMENT @ INTERIOR COLUMNS

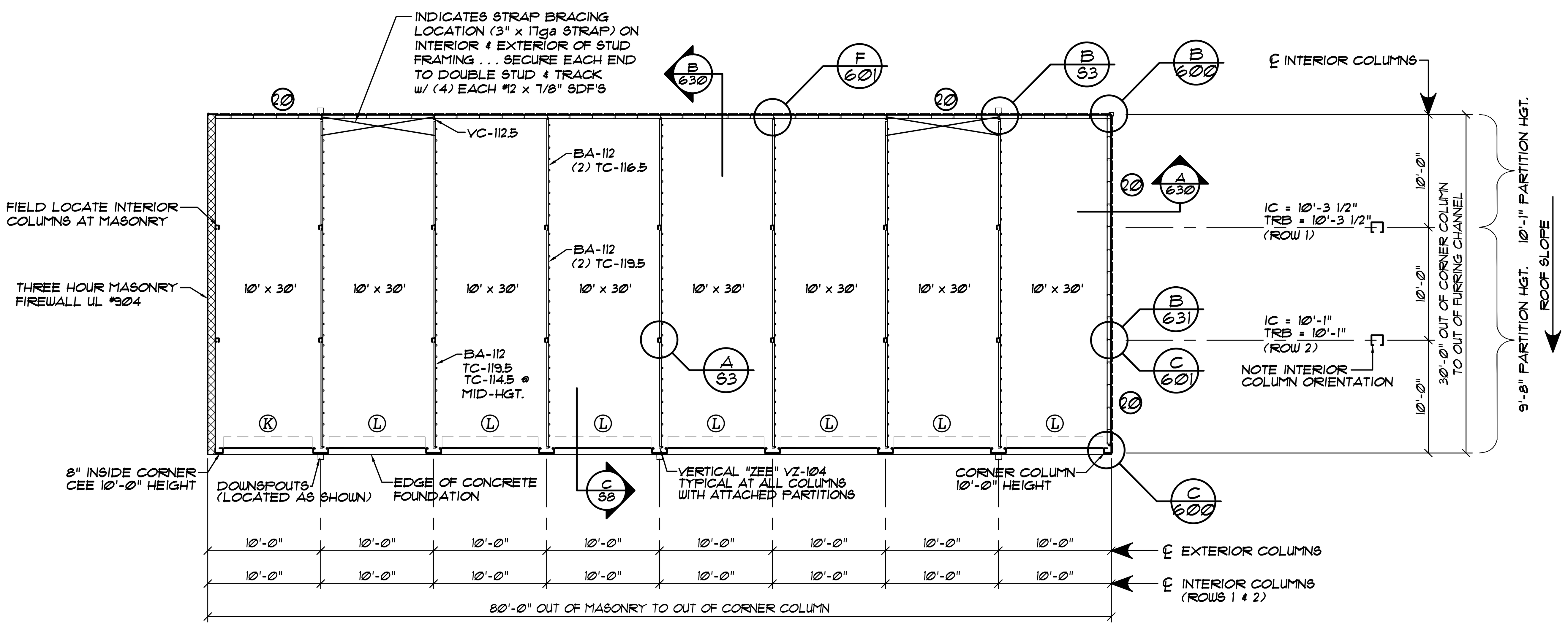
NOT TO SCALE



FLOOR PLAN . . . BUILDING "E"

SCALE: 1/8" = 1'-0"

NOTE: BUILDING "E" IS PROVIDED W/(4) ADJUSTABLE CONTROL JOINT COLUMNS. (2)AT 10'-0" HEIGHT
(2)AT 10'-10" HEIGHT



FLOOR PLAN . . . BUILDING "B"

SCALE: 1/8" = 1'-0"

NOTE: BUILDING "B" IS PROVIDED W/(1) ADJUSTABLE CONTROL JOINT COLUMNS. 10'-0" HEIGHT

20 EXTERIOR STUDWALL CONSTRUCTION @ FLAT SLAB:

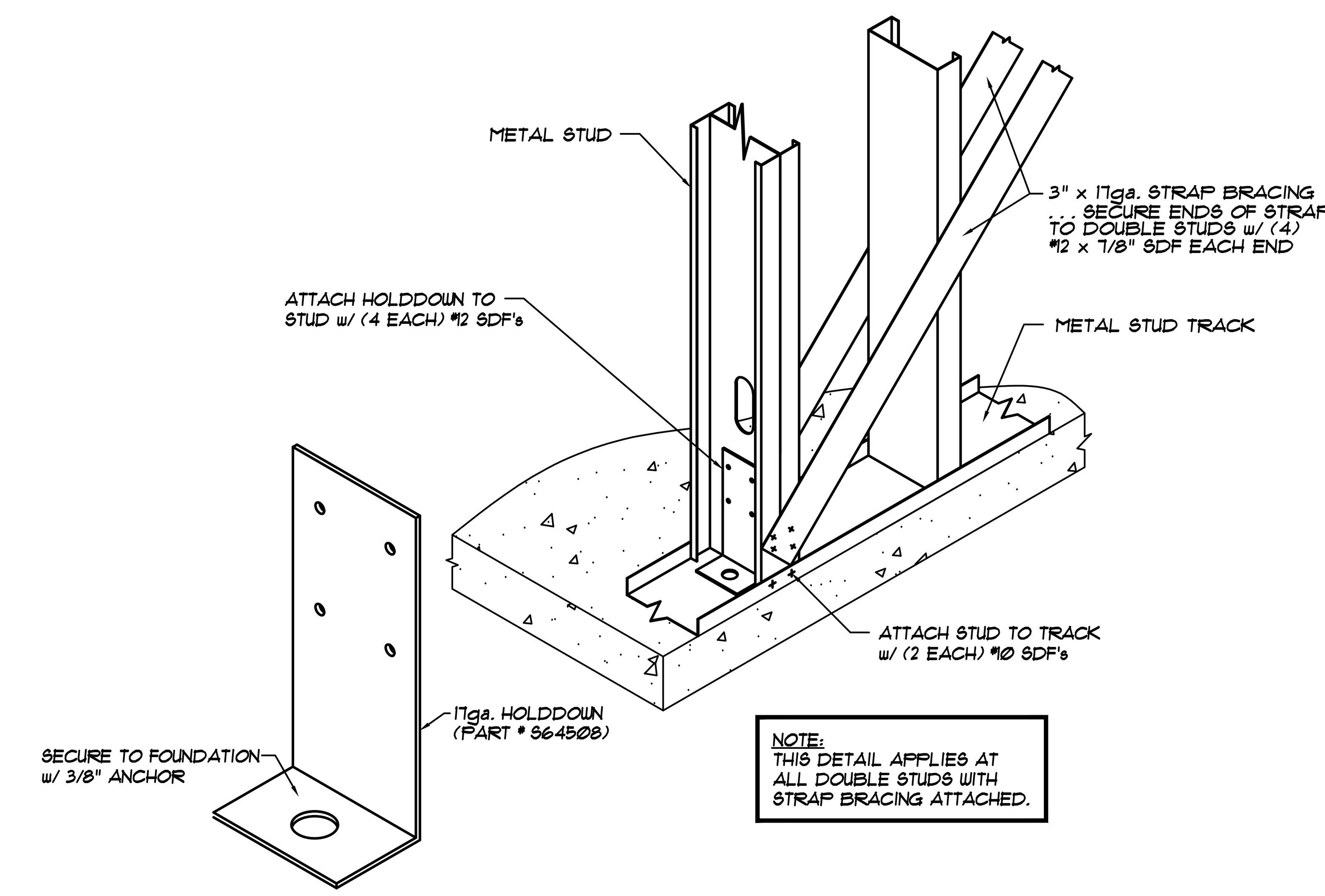
- -3 5/8" METAL STUDS @ 24" O.C. - 20ga
- -3 5/8" CONTINUOUS FLOOR AND CEILING TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX
- -3 ROWS CONTINUOUS 20ga. FURRING CHANNELS
- -PRE-PAINTED EXTERIOR 236A WALL PANELS
- -WALL PANEL BASE SUPPORT
- -DRIP CAP (#T60120)
- -BLOCK STUDS AT MID-HEIGHT AS SHOWN IN ERC631X

NOTE: GENERAL STUDWALL CONSTRUCTION:

A) -ATTACH STUDS W/ #10 X 5/8" SDF'S EACH SIDE OF TRACK (4 PER STUD)

B) -WALLS MUST EXTEND FROM ROOF TO FLOOR DECK AND INTO WALL COLUMN CAVITY.

C) -TOP TRACK MUST FOLLOW SLOPE OF ROOF LINE.



B/S3 STRAP BRACING CONNECTION

NOT TO SCALE

STUDWALL LEGEND	BUILDING "B"	
INTERIOR STUDWALL	EXTERIOR STUDWALL	
DESCRIPTION	UNINSULATED	INSULATED*
20 EXTERIOR STUDWALL CONSTRUCTION AT FLAT SLAB (BLOCK @ MID-HGT.)	110 L.F.	0 L.F.

NOTE #1: SEE BLOCKING DETAIL A/631 ON ERC631X

DOOR SCHEDULE

ID	DOOR SIZE	TYPE
K	8'-0" x 8'-3"	EXTERIOR ROLL-UP DOOR
L	8'-8" x 8'-3"	EXTERIOR ROLL-UP DOOR
M	3'-8" x 8'-3"	EXTERIOR ROLL-UP DOOR
N	8'-8" x 9'-1"	EXTERIOR ROLL-UP DOOR

NOTE: BLOCK ALL LOAD-BEARING EXTERIOR STUDWALLS AS SHOWN ON ERC DETAIL A/631.

NOTE: UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.

NOTE: BUILDING "B" & "E" TO INCLUDE 5 1/2" x 6" KICK-OUT DOWNSPOUTS.

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

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Statesville, NC 28625
Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FLOOR PLANS, DETAILS & NOTES BUILDINGS "B" & "E"
DRAWING NUMBER: S3

6/6/2024 3:55:18 PM, RELEASE FOR CONSTRUCTION

FLOOR PLAN . . . BUILDING "D"

SCALE: 1/8" = 1'-0"

NOTES:

- --- 6" ROOF INSULATION (R-19) INCLUDED AT ENTIRE OF BUILDING "D". ADDITIONAL 3" UNFACED INSULATION (R-19 + R-11) INCLUDED AT CLIMATE CONTROLLED AREAS OF BUILDING "D".
- --- 4" WALL INSULATION (R-13) INCLUDED AT BUILDING "D".
- --- 5 1/2" x 6" KICK-OUT DOWNSPOUTS ARE INCLUDED.
- --- CORRIDOR WIDTH WILL BE A MINIMUM OF APPROXIMATELY 56" FROM FACE TO FACE OF DOOR JAMBS.
- --- 5 PANEL SOFFIT SYSTEM INCLUDED AT CORRIDORS.
- --- ATTACH ALL STUDS TO TRACKS WITH #10 x 5/8" SDF (4 PER STUD).
- --- BURGLAR BARS ARE PROVIDED ABOVE INTERIOR ROLL-UP DOORS AS REQUIRED.
- --- INTERIOR DOOR FRAMES AND PARTITIONS AT HALLWAYS ARE PREPAINTED.
- --- ALL PERSONNEL DOORS ARE GLOBAL AND INCLUDE LOCK-OPEN TYPE CLOSERS.
- --- ALL ROLL-UP DOORS ARE BY BETCO & INCLUDE TENSION ADJUSTERS & BEARINGS.
- --- SECURE INTERIOR PARTITION TO INTERIOR COLUMNS WITH (4) #10 x 5/8" SDF'S AS SHOWN ON ERC200X - ERC208X.
- --- INTERIOR DOOR JAMBS INCLUDE PARTITION CLOSURE ANGLES.
- --- NOTE FOR INTERIOR BEARING STUDWALLS: (SECURE BOTTOM TRACK W/ 3/8" x 3" KB-TZ2 ANCHORS (2" MIN. EMBEDMENT) @ 30" O.C. MAXIMUM).
- --- NOTE FOR ALL EXTERIOR STUDWALLS: (SECURE FLOOR TRACK w/ 3/8" x 3" KB-TZ2 ANCHORS (2" MIN. EMBEDMENT) @ 30" O.C. MAXIMUM).

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE: BLOCK ALL LOAD-BEARING INTERIOR & EXTERIOR STUDWALLS AS SHOWN ON ERC DETAIL A/631.

JAMB	ROLL-UP HEADER	SWING DOOR HEADER
8'-6"	18"	16 1/2"

STUDWALL LEGEND		BUILDING "B"
INTERIOR STUDWALL	EXTERIOR STUDWALL	
DESCRIPTION	UNINSULATED	INSULATED*
(19) EXTERIOR STUDWALL CONSTRUCTION AT FLAT SLAB (BLOCK @ MID-HGT.)	0 L.F.	600 L.F.
(11) FIRE BARRIER . . . 3 HOUR RATES: (NON-LOAD BEARING STUDWALL) (3 5/8" x 20ga. STUDS)	80 L.F.	0 L.F.

NOTE #1: GYPBOARD AND RELATED FINISH MATERIALS MAY NOT BE PROVIDED BY BETCO – VERIFY WITH CONTRACT.

NOTE #2: SEE BLOCKING DETAIL A/631 ON ERC631X

DOOR SCHEDULE

ID	DOOR SIZE	TYPE
A	4'–0" x 7'–0" (4070 – 1) (ERC254X)	SOLID PERSONNEL
B	3'–0" x 7'–0"	INTERIOR SWING DOOR WITH LOUVER
C	3'–0" x 7'–0"	INTERIOR ROLL–UP
D	3'–8" x 7'–0"	INTERIOR ROLL–UP
E	8'–0" x 7'–0"	INTERIOR ROLL–UP
H	3'–0" x 7'–0" (3070 – 1 – A) (ERC254X)	A–LABEL FIRE DOOR
P	5'–6" x 7'–0"	INTERIOR ROLL–UP DOOR

LEGEND:

- (14) 14ga. INTERIOR COLUMN
- (X) 22ga. INTERIOR COLUMN
- CLIMATE CONTROLLED AREAS

NOTE: SEE ERC602X FOR EXTERIOR SWING DOOR FRAMING IN STUDWALL.

NOTE: UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.

NOTE COLUMN ORIENTATION @ CORRIDORS PARALLEL TO ROOF BEAMS

CORRIDOR

TRB = TOP OF ROOF BEAM A.F.F.
IC = INTERIOR COLUMN HEIGHT 3 5/8" x 3 5/8" x 17ga.
PC = PONY COLUMN HEIGHT 3 5/8" x 3 5/8" x 17ga.
BMC = BOTTOM OF METAL CEE A.F.F.
BA = BASE ANGLE
TC = TOP CHANNEL
VC = VERTICAL CHANNEL

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Limited Engineering License # D-0140

NOTE:
15ft. ROOF BEAMS ARE 3" x 12" x 12ga. ZEE'S WITH ROOF BLOCKING @ MID-POINT. (SEE DETAIL D/S5)

20ft. ROOF BEAMS ARE 3" x 12" x 12ga. ZEE'S WITH ROOF BLOCKING @ 1/3 POINTS. (SEE DETAIL D/S5)

(19) EXTERIOR STUDWALL CONSTRUCTION @ FLAT SLAB:

- -3 5/8" METAL STUDS @ 24" O.C. - 18ga
- -3 5/8" CONTINUOUS FLOOR AND CEILING TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX
- -3 ROWS CONTINUOUS 20ga. FURRING CHANNELS
- -PRE-PAINTED EXTERIOR 236A WALL PANELS
- -WALL PANEL BASE SUPPORT
- -DRIP CAP (#T60120)
- *-4" THICK (R-13) FIBERGLASS INSULATION
- *-4 MIL POLYETHYLENE VAPOR BARRIER
- *-J-TRIM AT TOP OF LINER PANELS
- *-230 LINER PANELS EACH SIDE (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
- -BLOCK STUDS AT MID-HEIGHT AS SHOWN IN ERC631X

NOTE TO ERECTOR:
INSTALL SA–2 ANGLE TO 15'–0" & 20'–0" ROOF BEAM AT MID–SPAN. RUN VERTICALLY TO CLIP IN FLOOR TO PROVIDE TEMPORARY BRACING PRIOR TO ROOF INSTALLATION. BRACE WILL PREVENT BEAM TWIST.

(11) FIRE BARRIER . . . 3 HOUR RATED UL #419 (NON-LOAD BEARING) (SEE SHEET CS4 FOR DESIGN)

- -3 5/8" METAL STUDS @ 24" O.C. - 20ga.
- -3 5/8" CONTINUOUS FLOOR and CEILING TRACK - 20ga (TOP TRACK MUST FOLLOW SLOPE OF ROOF DECK) (SECURE BOTTOM TRACK W/ 7/8" PDF'S AT 24" O.C.)
- -5/8" GYPSUM BOARD (X-RATED) 3 LAYERS EACH SIDE IT MUST BE PLACED SUCH THAT ALL JOINTS ARE VERTICAL (NOT BY BETCO).
- -GYPSUM BOARD (NOT BY BETCO) SHALL BE ATTACHED TO STUDS, FLOOR AND CEILING TRACK USING TYPE "S" SELF-TAPPING SCREWS ALONG EDGES OF BOARD SPACED 8" O.C. AND 12" O.C. IN THE FIELD (NOT BY BETCO).
- -VINYL OR CASE-IN, DRY OR PRE-MIXED JOINT COMPOUND APPLIED IN TWO COATS TO JOINTS SCREW-HEADS. PERFORATED PAPER TAPE, 2" WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS (NOT BY BETCO).

NOTE: GENERAL STUDWALL CONSTRUCTION:

A) -ATTACH STUDS W/ #10 X 5/8" SDF'S EACH SIDE OF TRACK (4 PER STUD)
B) -WALLS MUST EXTEND FROM ROOF TO FLOOR DECK AND INTO WALL COLUMN CAVITY.
C) -TOP TRACK MUST FOLLOW SLOPE OF ROOF LINE.

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS | DATE | BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654–7813

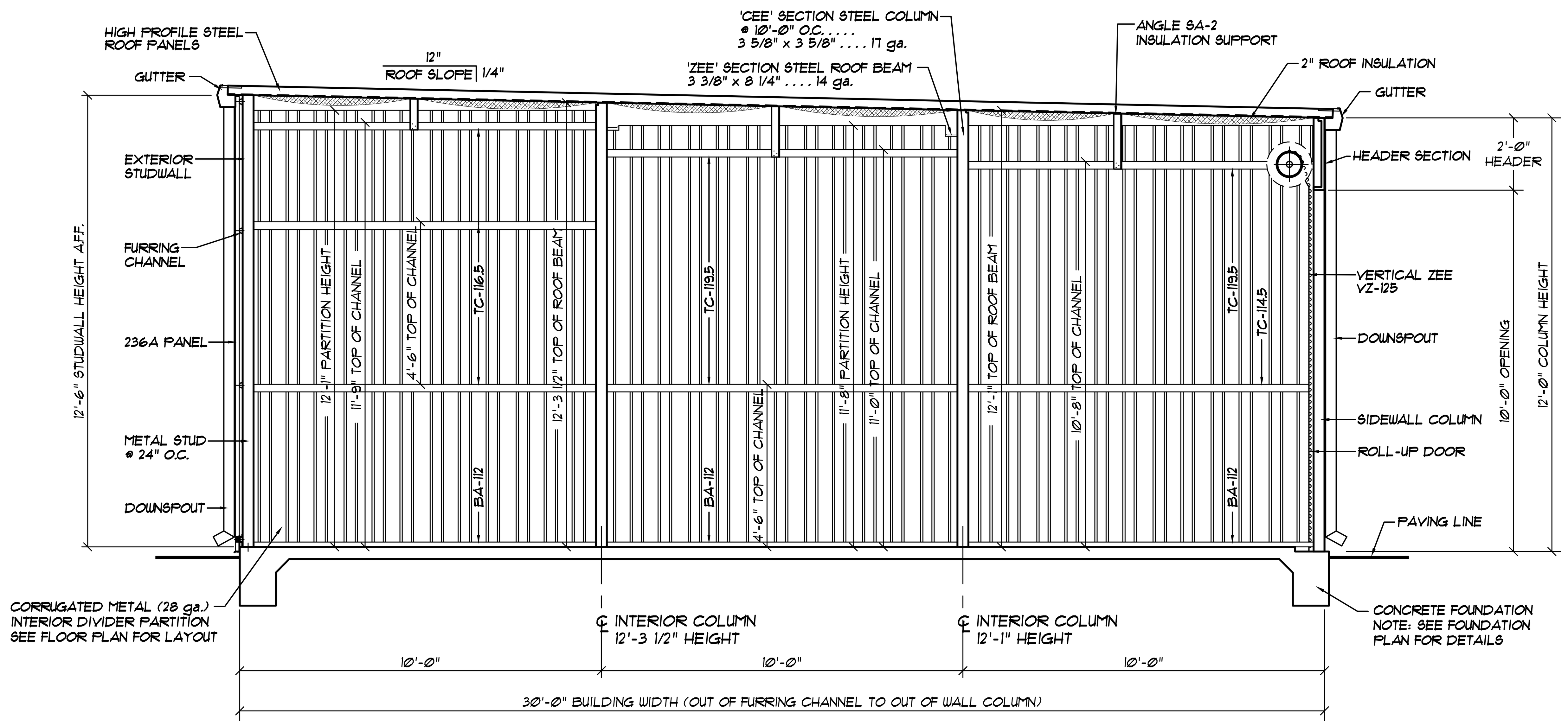
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FLOOR PLAN & NOTES BUILDING "D"
DRAWING NUMBER: S4

6/6/2024 3:55:49 PM, RELEASE FOR CONSTRUCTION

FLOOR PLAN . . . BUILDING "F"

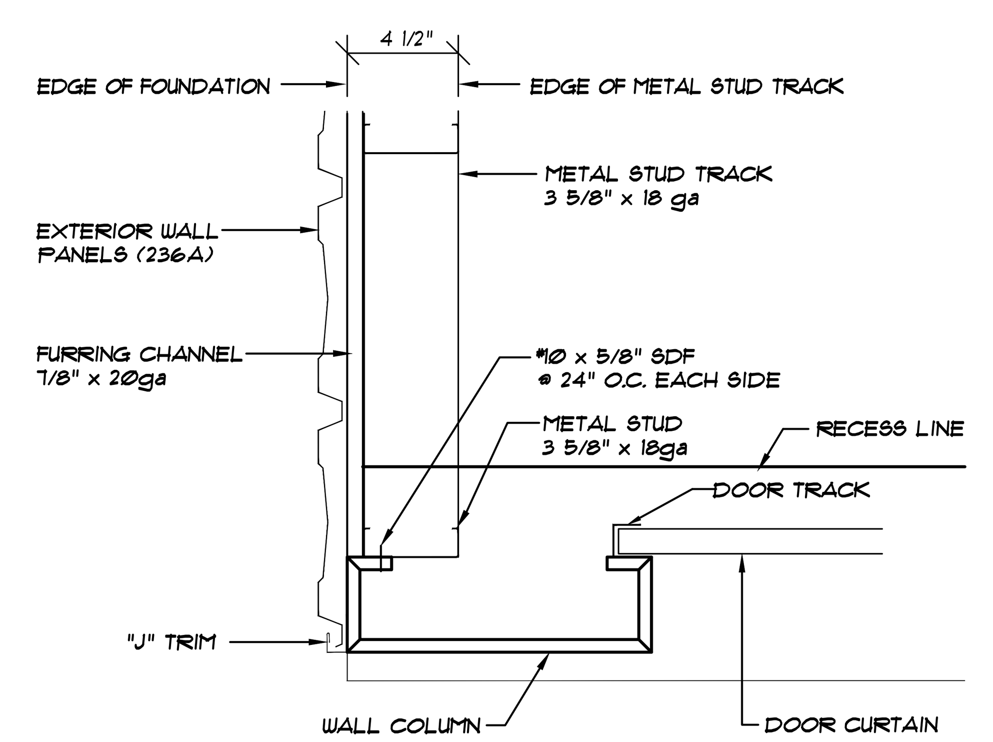
SCALE: 1/8" = 1'-0"

NOTE: BUILDING "F" IS PROVIDED W/(2) ADJUSTABLE CONTROL JOINT COLUMNS. 12'-0" HEIGHT



A/S5 30'-0" WIDE CROSS SECTION . . . BUILDING "F"

SCALE: 3/8" = 1'-0"



B/S5 STUDWALL CONSTRUCTION @ WALL COLUMN

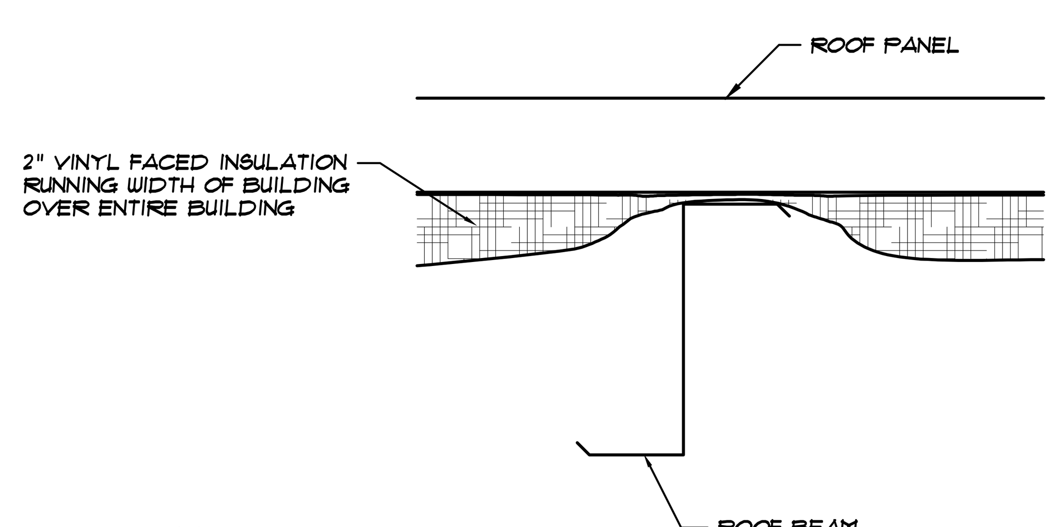
NOT TO SCALE

1 EXTERIOR STUDWALL CONSTRUCTION @ FLAT SLAB:

- 3 5/8" METAL STUDS @ 24" O.C. - 14ga
- 3 5/8" CONTINUOUS FLOOR AND CEILING TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX
- 3 ROWS CONTINUOUS 20ga. FURRING CHANNELS
- PRE-PAINTED EXTERIOR 236A WALL PANELS
- WALL PANEL BASE SUPPORT
- DRIP CAP (#T60120)
- BLOCK STUDS AT MID-HEIGHT AS SHOWN IN ERC631X

NOTE: GENERAL STUDWALL CONSTRUCTION:

A) -ATTACH STUDS W/ #10 x 5/8" SDF'S EACH SIDE OF TRACK (4 PER STUD)
B) -WALLS MUST EXTEND FROM ROOF TO FLOOR DECK AND INTO WALL COLUMN CAVITY.
C) -TOP TRACK MUST FOLLOW SLOPE OF ROOF LINE.



C/S5 INSULATION @ ROOF BEAM BUILDINGS "B", "E" & "F"

NOT TO SCALE

NOTE: BUILDING "F" TO INCLUDE 5 1/2" x 6" KICK-OUT DOWNSPOUTS.

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE TO ERECTOR: INSTALL SA-2 ANGLE TO 15'-0" ROOF BEAM AT MID-SPAN. RUN VERTICALLY TO CLIP IN FLOOR TO PROVIDE TEMPORARY BRACING PRIOR TO ROOF INSTALLATION. BRACE WILL PREVENT BEAM TWIST.

NOTE: BLOCK ALL LOAD-BEARING EXTERIOR STUDWALLS AS SHOWN ON ERC DETAIL A/631.

NOTE: UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.

LEGEND:
14 — 14ga. INTERIOR COLUMN

NOTE: 15ft. ROOF BEAMS ARE 3 3/8" x 10" x 12ga. ZEE'S.

DOOR SCHEDULE		
ID	DOOR SIZE	TYPE
Q	8'-8" x 10'-0"	EXTERIOR ROLL-UP DOOR
R	10'-0" x 10'-0"	EXTERIOR ROLL-UP DOOR

STUDWALL LEGEND		BUILDING "F"
INTERIOR STUDWALL	EXTERIOR STUDWALL	
DESCRIPTION	UNINSULATED	INSULATED*
1 EXTERIOR STUDWALL CONSTRUCTION AT FLAT SLAB (BLOCK @ MID-HGT.)	280 L.F.	0 L.F.

NOTE #1: SEE BLOCKING DETAIL A/631 ON ERC631X

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Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

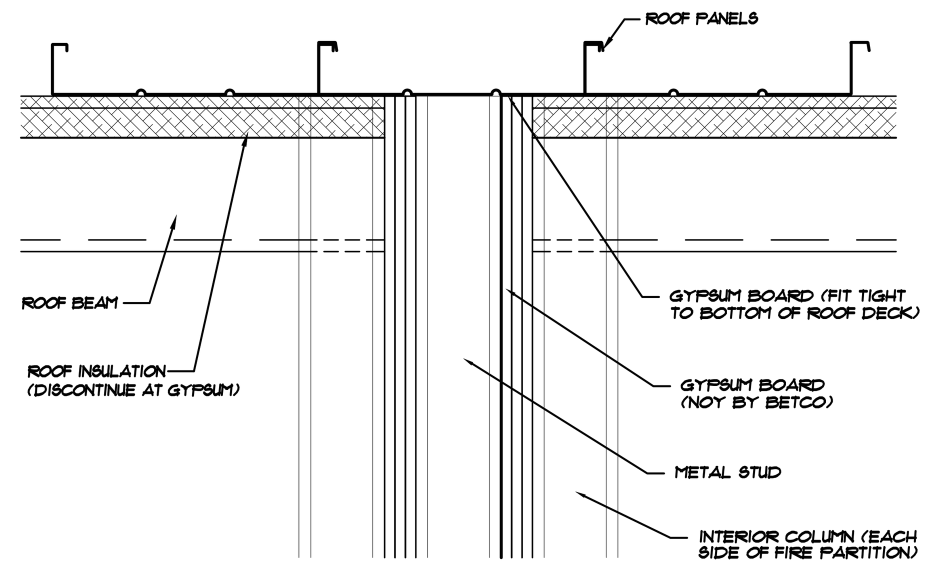
REVISIONS | DATE | BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

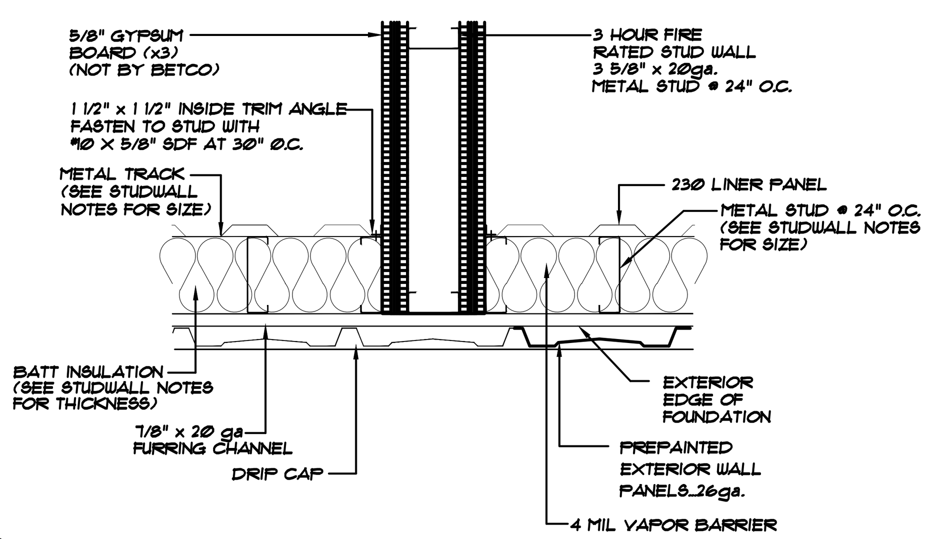
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FLOOR PLAN, SECTION, DETAILS & NOTES - BUILDING "F"
DRAWING NUMBER: S5

6/6/2024 3:56:11 PM, RELEASE FOR CONSTRUCTION



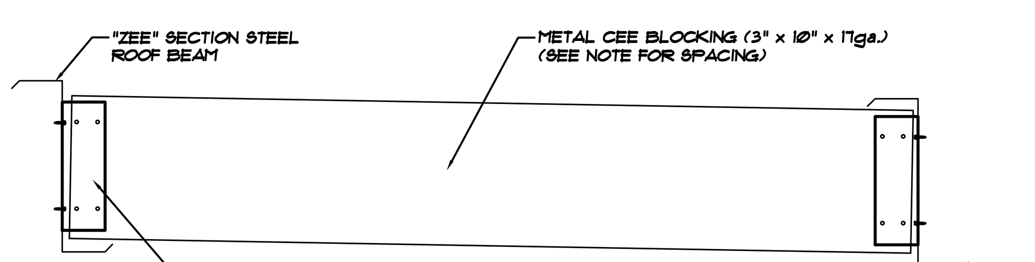
A/S6 SECTION AT 3 HOUR FIRE BARRIER

NOT TO SCALE



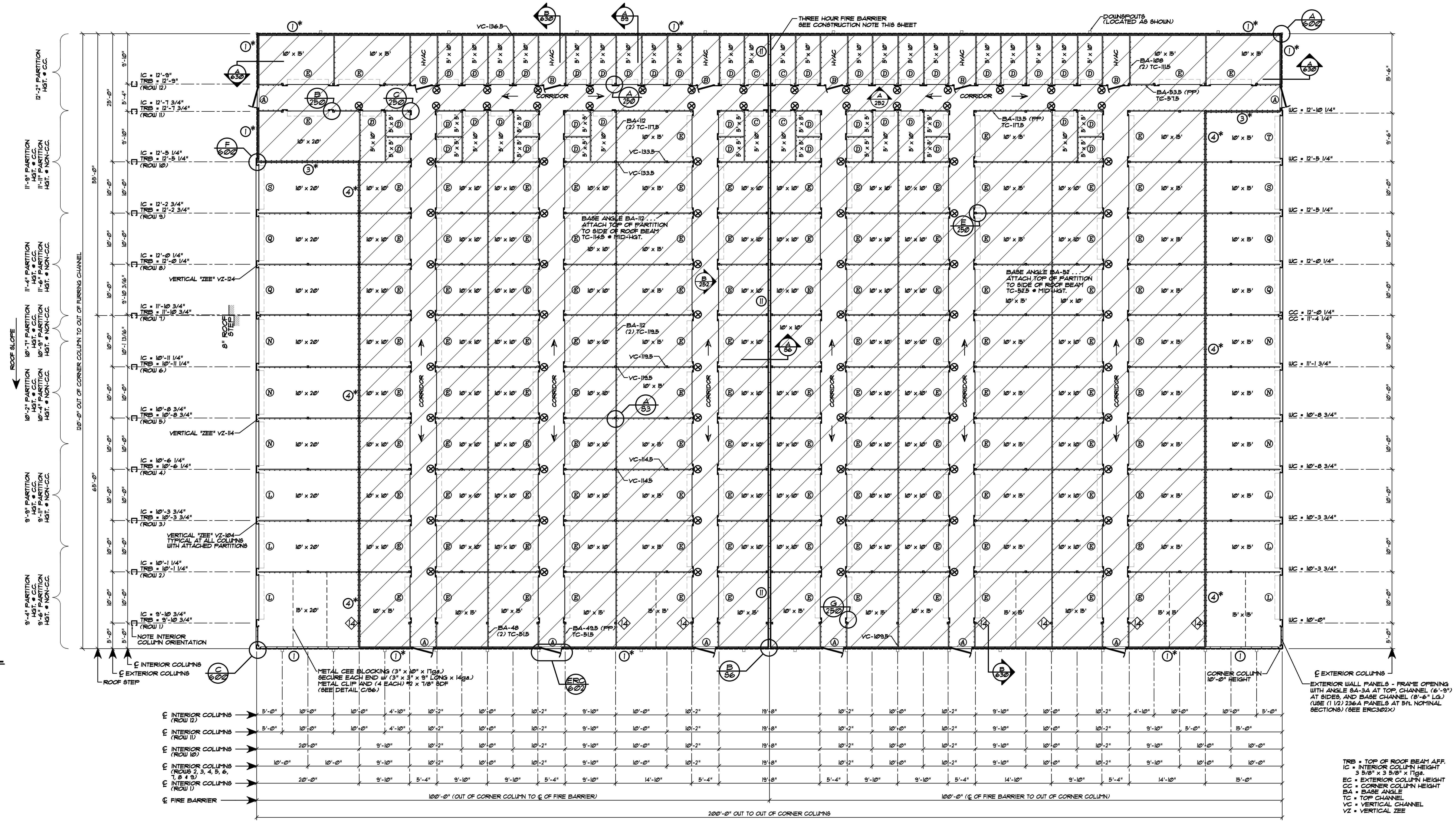
B/S6 3 HOUR FIRE BARRIER AT INSULATED EXTERIOR STUDWALL

NOT TO SCALE



C/S6 ROOF BEAM BLOCKING DETAIL

NOT TO SCALE



FLOOR PLAN . . . BUILDING "G"

SCALE: 3/32" = 1'-0"

TRB = TOP OF ROOF BEAM A.F.F.
IC = INTERIOR COLUMN HEIGHT 3 5/8" x 3 5/8" x 17ga.
EC = EXTERIOR COLUMN HEIGHT
CC = CORNER COLUMN HEIGHT
BA = BASE ANGLE
TC = TOP CHANNEL
VC = VERTICAL CHANNEL
VZ = VERTICAL ZEE

NOTE:
SEE ERC602X FOR EXTERIOR SWING DOOR FRAMING IN STUDWALL.

NOTE:
UNIT SIZES SHOWN ARE NOMINAL. ACTUAL CLEAR DIMENSIONS INSIDE UNITS MAY VARY ACCORDING TO FINAL DESIGN OF COMPONENTS.

NOTES:
--- 6" ROOF INSULATION (R-19) INCLUDED AT ENTIRE OF BUILDING "G". ADDITIONAL 3" UNFACED INSULATION (R-19 + R-11) INCLUDED AT CLIMATE CONTROLLED AREAS OF BUILDING "G".
--- 4" WALL INSULATION (R-13) INCLUDED AT BUILDING "G".
--- 5 1/2" x 6" KICK-OUT DOWNSPOUTS ARE INCLUDED.
--- CORRIDOR WIDTH WILL BE A MINIMUM OF APPROXIMATELY 56" FROM FACE TO FACE OF DOOR JAMBS.
--- 5 PANEL SOFFIT SYSTEM INCLUDED AT CORRIDORS.
--- ATTACH ALL STUDS TO TRACKS WITH #10 x 5/8" SDF (4 PER STUD).
--- BURGLAR BARS ARE PROVIDED ABOVE INTERIOR ROLL-UP DOORS AS REQUIRED.
--- INTERIOR DOOR FRAMES AND PARTITIONS AT HALLWAYS ARE PREPAINTED.
--- ALL PERSONNEL DOORS ARE GLOBAL AND INCLUDE LOCK-OPEN TYPE CLOSERS.
--- ALL ROLL-UP DOORS ARE BY BETCO & INCLUDE TENSION ADJUSTERS & BEARINGS.
--- SECURE INTERIOR PARTITION TO INTERIOR COLUMNS WITH (4) #10 x 5/8" SDF'S AS SHOWN ON ERC200X - ERC208X.
--- INTERIOR DOOR JAMBS INCLUDE PARTITION CLOSURE ANGLES.
--- NOTE FOR INTERIOR BEARING STUDWALLS: (SECURE BOTTOM TRACK W/ 3/8" x 3" KB-TZ2 ANCHORS (2" MIN. EMBEDMENT) @ 30" O.C. MAXIMUM).
--- NOTE FOR ALL EXTERIOR STUDWALLS: (SECURE FLOOR TRACK w/ 3/8" x 3" KB-TZ2 ANCHORS (2" MIN. EMBEDMENT) @ 30" O.C. MAXIMUM).

NOTE TO ERECTOR:
INSTALL SA-2 ANGLE TO 15'-0" & 20'-0" ROOF BEAM AT MID-SPAN. RUN VERTICALLY TO CLIP IN FLOOR TO PROVIDE TEMPORARY BRACING PRIOR TO ROOF INSTALLATION. BRACE WILL PREVENT BEAM TWIST.

NOTE:
15ft. ROOF BEAMS ARE 3" x 12" x 12ga. ZEE'S WITH ROOF BLOCKING @ MID-POINT. (SEE DETAIL D/S5)

20ft. ROOF BEAMS ARE 3" x 12" x 12ga. ZEE'S WITH ROOF BLOCKING @ 1/3 POINTS. (SEE DETAIL D/S5)

STUDWALL LEGEND		BUILDING "G"
INTERIOR STUDWALL	EXTERIOR STUDWALL	
DESCRIPTION	UNINSULATED	INSULATED*
(1) EXTERIOR STUDWALL CONSTRUCTION AT FLAT SLAB (BLOCK @ MID-HGT.) (3 5/8" x 14ga. STUDS)	35 L.F.	405 L.F.
(3)* INSULATED LOAD BEARING STUDWALL (BLOCK @ MID-HGT.) (3 5/8" x 20ga. STUDS)	N/A	35 L.F.
(4)* INSULATED NON-LOAD BEARING STUDWALL (3 5/8" x 20ga. STUDS)	N/A	200 L.F.
(11) FIRE BARRIER . . . 3 HOUR RATES: (NON-LOAD BEARING STUDWALL) (3 5/8" x 20ga. STUDS)	120 L.F.	0 L.F.

NOTE #1: * = INSULATED (SEE ERC610X) – COORDINATE WITH FLOOR PLAN. (NOTE WALLS #3 AND #4 ARE ALWAYS INSULATED)
NOTE #2: GYPBOARD AND RELATED FINISH MATERIALS MAY NOT BE PROVIDED BY BETCO – VERIFY WITH CONTRACT.
NOTE #3: SEE BLOCKING DETAIL A/631 ON ERC631X

(1) EXTERIOR STUDWALL CONSTRUCTION @ FLAT SLAB:
-3 5/8" METAL STUDS @ 24" O.C. - 14ga
-3 5/8" CONTINUOUS FLOOR AND CEILING TRACK - 18ga. - FASTEN w/ 3/8" x 3" KB-TZ2 ANCHOR (2" MIN. EMBEDMENT) @ 30" O.C. MAX
-3 OR 4 ROWS CONTINUOUS 20ga. FURRING CHANNELS (4'-0" O.C. MAX)
-PRE-PAINTED EXTERIOR 236A WALL PANELS
-WALL PANEL BASE SUPPORT
-DRIP CAP (#T60120)
*-4" THICK (R-13) FIBERGLASS INSULATION
*-4 MIL POLYETHYLENE VAPOR BARRIER
*-J-TRIM AT TOP OF LINER PANELS
*-230 LINER PANELS EACH SIDE (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
-BLOCK STUDS AT MID-HEIGHT AS SHOWN IN ERC631X

(3) INSULATED LOAD BEARING STUDWALL :
-3 5/8" METAL STUDS @ 24" O.C. - 20ga
-3 5/8" CONTINUOUS FLOOR AND CEILING TRACK - 18ga. - FASTEN w/ 3/8" x 3" WEDGE ANCHOR (2" MIN. EMBEDDMENT) @ 30" O.C. MAX
*-4" THICK FIBERGLASS INSULATION
*-4 MIL POLYETHYLENE VAPOR BARRIER
*-NO J-TRIM REQUIRED AT TOP OF LINER PANELS
*-230 LINER PANELS @ INTERIOR (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)
-BLOCK STUDS AT MID-HEIGHT AS SHOWN IN ERC631X

(4) INSULATED NON-LOAD BEARING STUDWALL :
-3 5/8" METAL STUDS @ 24" O.C. - 20ga
-3 5/8" CONTINUOUS FLOOR AND CEILING TRACK - 20ga. (ATTACH BASE TRACK TO CONCRETE FLOOR SLAB WITH 7/8" PDF's @ 24" O.C.)
*-4" THICK FIBERGLASS INSULATION
*-4 MIL POLYETHYLENE VAPOR BARRIER
*-J-TRIM AT TOP OF LINER PANELS PERPENDICULAR TO ROOF PURLINS
*-230 LINER PANELS @ INTERIOR (ATTACH EACH PANEL AT BASE AND TOP w/ (4) EACH #10 SDF's)

(11) FIRE BARRIER . . . 3 HOUR RATED UL #419 (NON-LOAD BEARING) (SEE SHEET CS4 FOR DESIGN)
-3 5/8" METAL STUDS @ 24" O.C. - 20ga.
-3 5/8" CONTINUOUS FLOOR and CEILING TRACK - 20ga (TOP TRACK MUST FOLLOW SLOPE OF ROOF DECK) (SECURE BOTTOM TRACK W/ 7/8" PDF'S AT 24" O.C.)
-5/8" GYPSUM BOARD (X-RATED) 3 LAYERS EACH SIDE IT MUST BE PLACED SUCH THAT ALL JOINTS ARE VERTICAL (NOT BY BETCO).
-GYPSUM BOARD (NOT BY BETCO) SHALL BE ATTACHED TO STUDS, FLOOR AND CEILING TRACK USING TYPE "S" SELF-TAPPING SCREWS ALONG EDGES OF BOARD SPACED 8" O.C. AND 12" O.C. IN THE FIELD (NOT BY BETCO).
-VINYL OR CASE-IN, DRY OR PRE-MIXED JOINT COMPOUND APPLIED IN TWO COATS TO JOINTS SCREW-HEADS. PERFORATED PAPER TAPE, 2" WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS (NOT BY BETCO).

NOTE: GENERAL STUDWALL CONSTRUCTION:
A) -ATTACH STUDS W/ #10 X 5/8" SDF'S EACH SIDE OF TRACK (4 PER STUD)
B) -WALLS MUST EXTEND FROM ROOF TO FLOOR DECK AND INTO WALL COLUMN CAVITY.
C) -TOP TRACK MUST FOLLOW SLOPE OF ROOF LINE.

NOTE: BLOCK ALL LOAD-BEARING INTERIOR & EXTERIOR STUDWALLS AS SHOWN ON ERC DETAIL A/631.

NOTE COLUMN ORIENTATION @ CORRIDORS PARALLEL TO ROOF BEAMS

CORRIDOR

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

LEGEND:
(14) 14ga. INTERIOR COLUMN
(X) 22ga. INTERIOR COLUMN
CLIMATE CONTROLLED AREAS

JAMB	ROLL-UP HEADER	SWING DOOR HEADER
8'-6"	18"	16 1/2"

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DOOR SCHEDULE

ID	DOOR SIZE	TYPE
(A)	4'–0" x 7'–0" (4070 – 1) (ERC254X)	SOLID PERSONNEL
(B)	3'–0" x 7'–0"	INTERIOR SWING DOOR WITH LOUVER
(C)	3'–0" x 7'–0"	INTERIOR ROLL–UP
(D)	3'–8" x 7'–0"	INTERIOR ROLL–UP
(E)	8'–0" x 7'–0"	INTERIOR ROLL–UP
(L)	8'–8" x 8'–3"	EXTERIOR ROLL–UP DOOR
(N)	8'–8" x 9'–1"	EXTERIOR ROLL–UP DOOR
(Q)	8'–8" x 10'–0"	EXTERIOR ROLL–UP DOOR
(S)	8'–8" x 10'–5"	EXTERIOR ROLL–UP DOOR
(T)	8'–4" x 10'–5"	EXTERIOR ROLL–UP DOOR

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

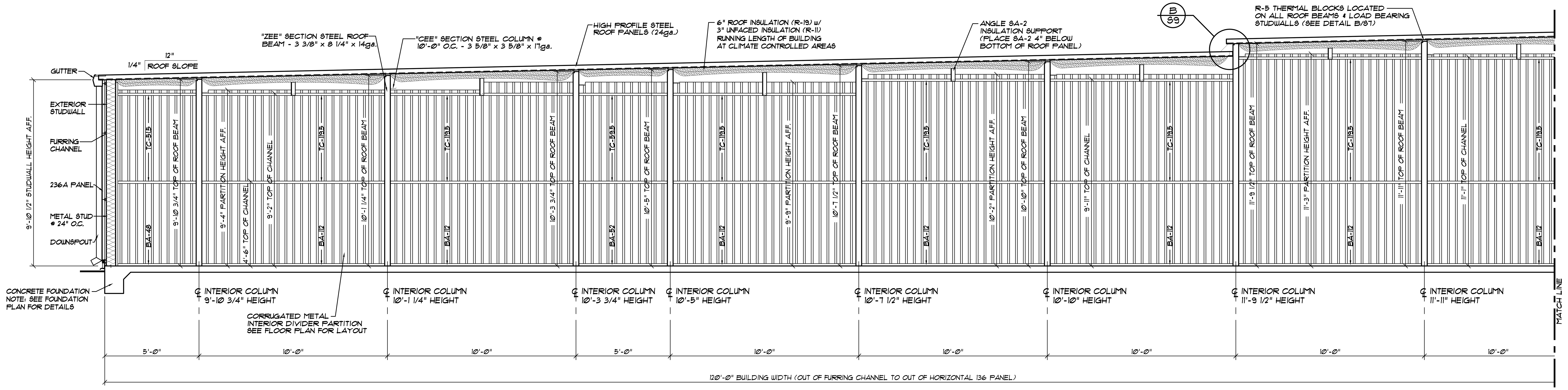
REVISIONS | DATE | BY

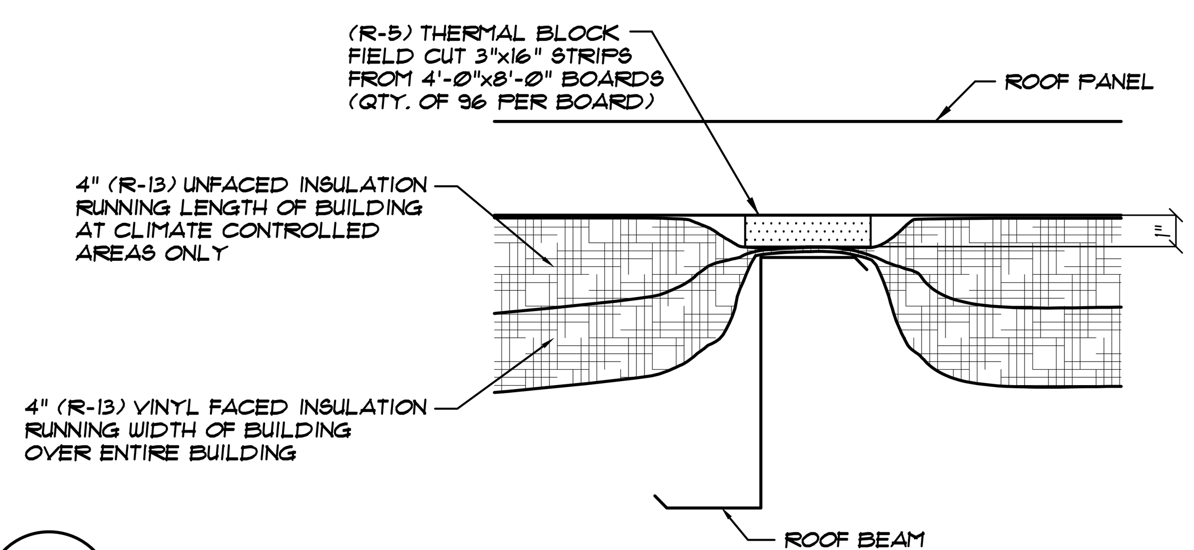
DATE: 12/29/23
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654–7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FLOOR PLAN, DETAILS & NOTES BUILDING "G"
DRAWING NUMBER: S6

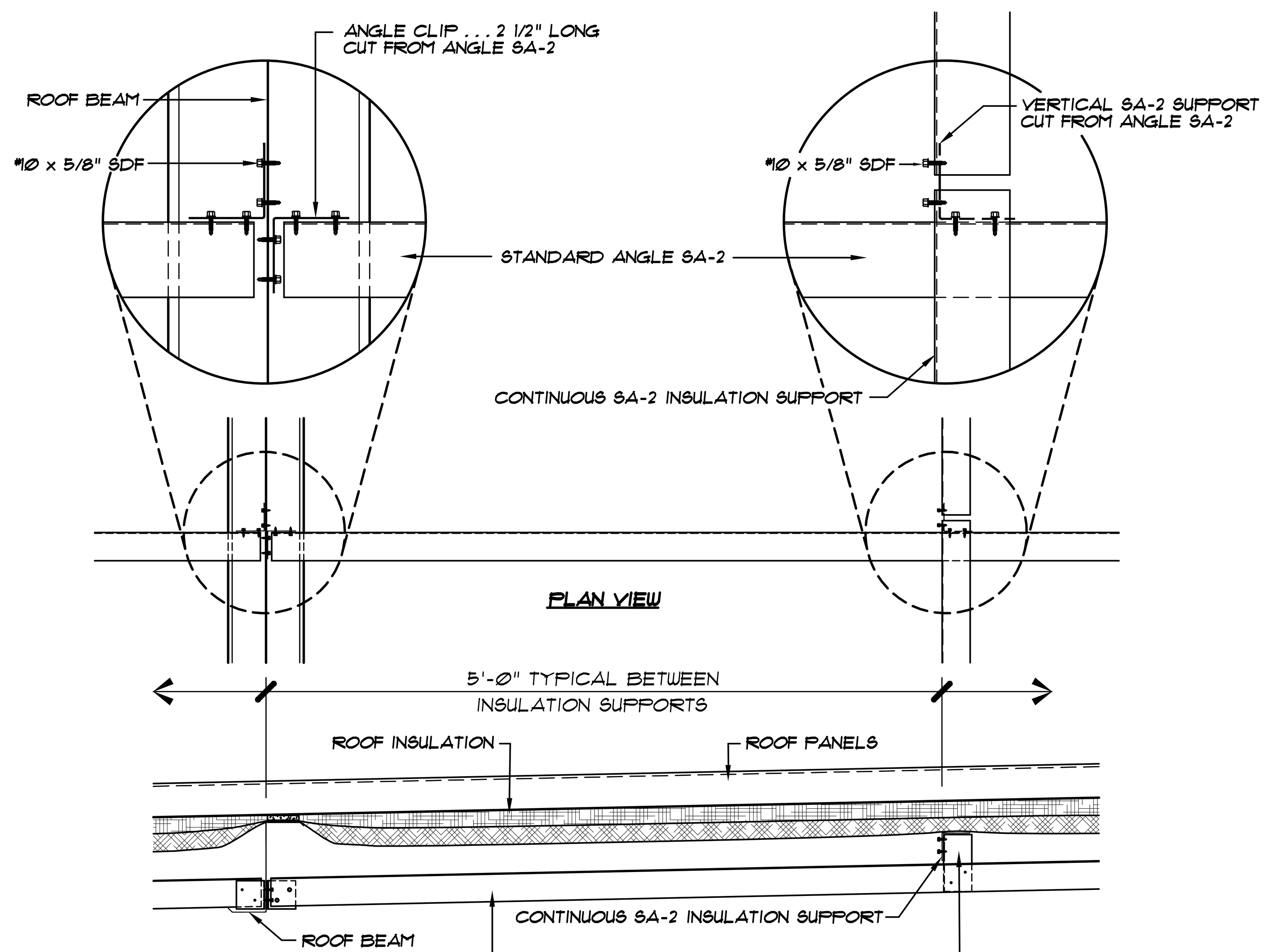
6/6/2024 3:56:58 PM, RELEASE FOR CONSTRUCTION





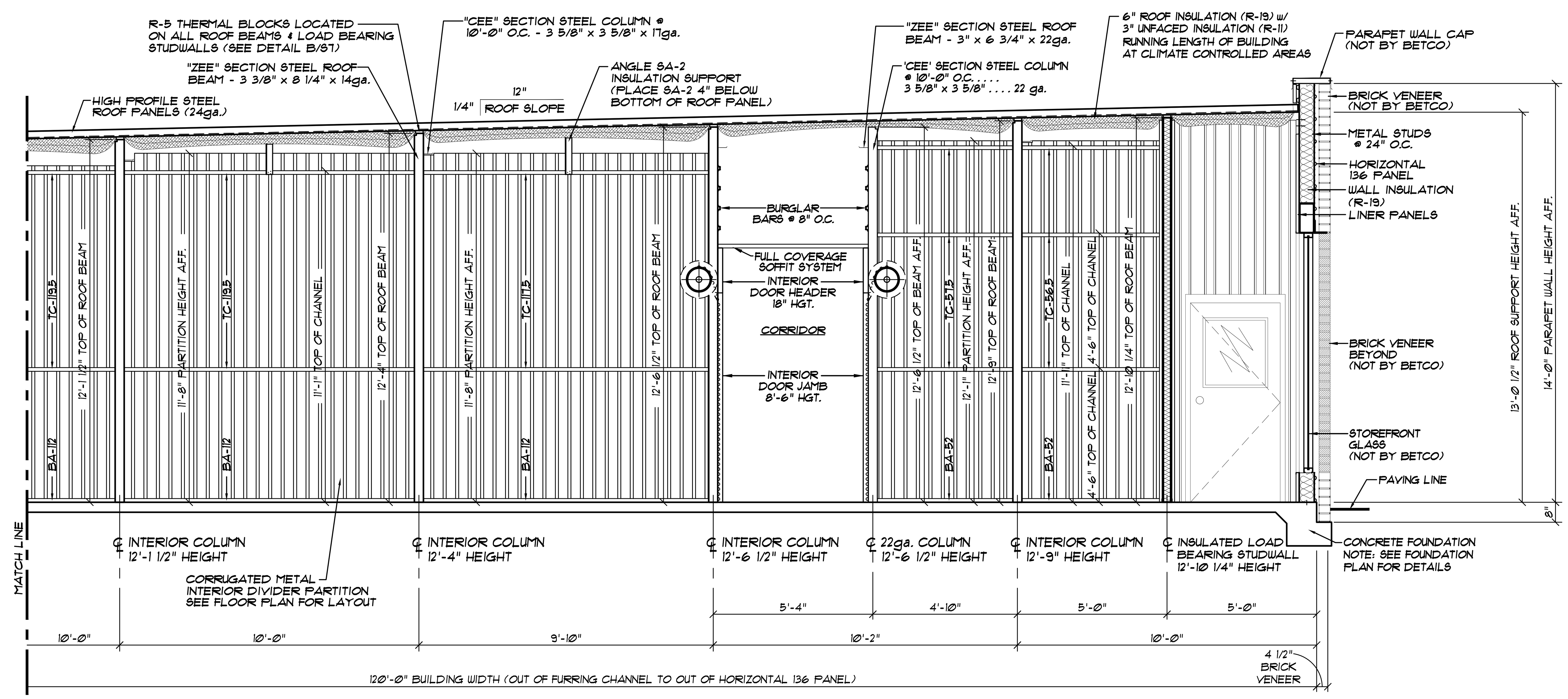
B S7 INSULATION & THERMAL BLOCK @ ROOF BEAM - BUILDINGS "A", "D" & "G"

NOT TO SCALE



C S7 INTERMEDIATE INSULATION SUPPORT ELEVATION AT DOUBLE LAYER ROOF INSULATION

NOT TO SCALE



A S7 120'-0" WIDE CROSS SECTION . . . BUILDING "A"

SCALE: 3/8" = 1'-0"

6/6/2024 3:57:36 PM, RELEASE FOR CONSTRUCTION

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NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

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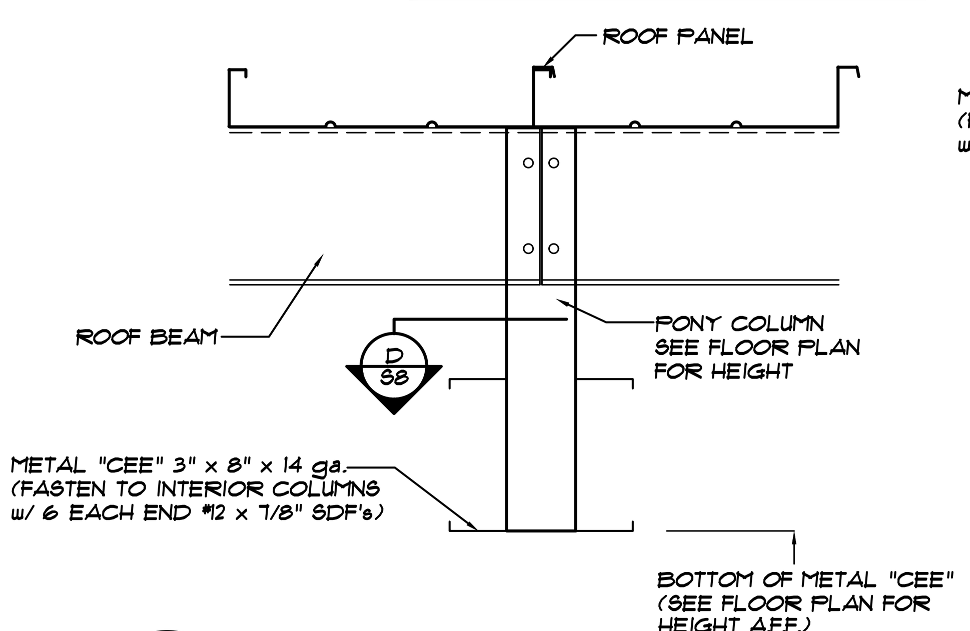
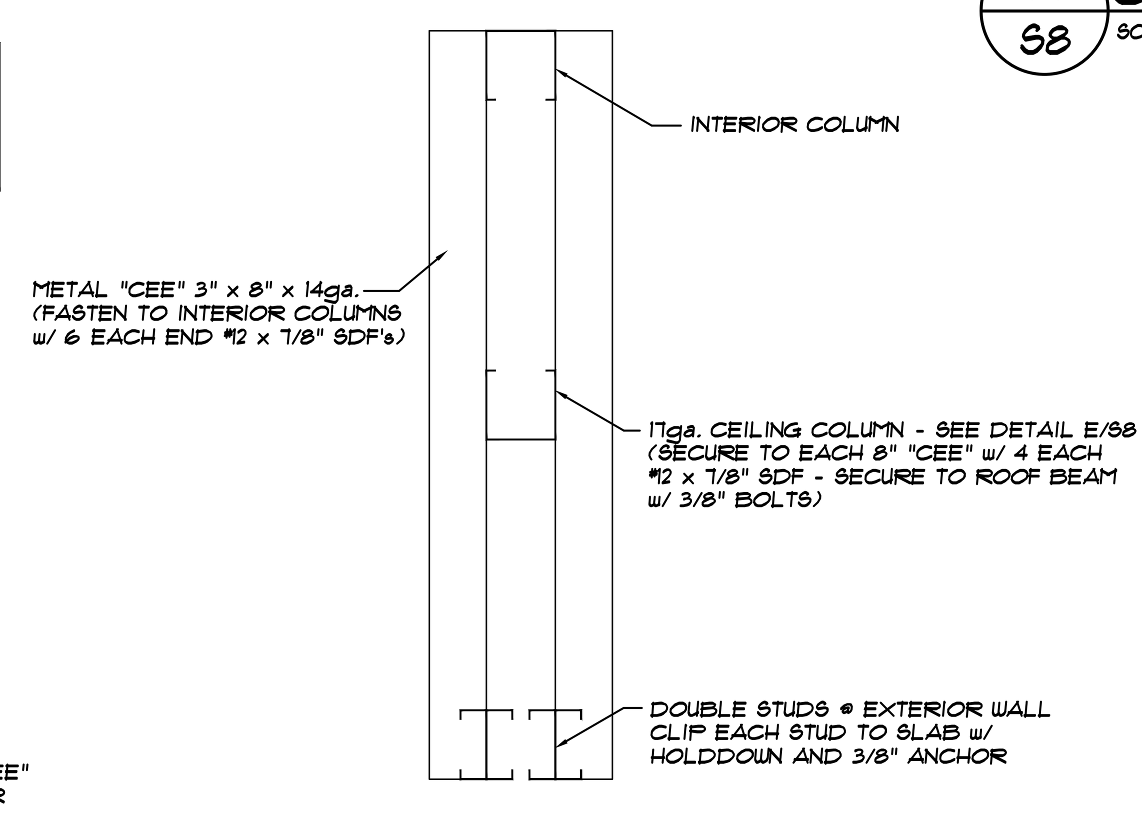
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: CROSS SECTION & DETAILS BUILDING "A"
DRAWING NUMBER: S7

A / S8 — 80'-0" WIDE CROSS SECTION . . . BUILDING "D"
SCALE: 3/8" = 1'-0"

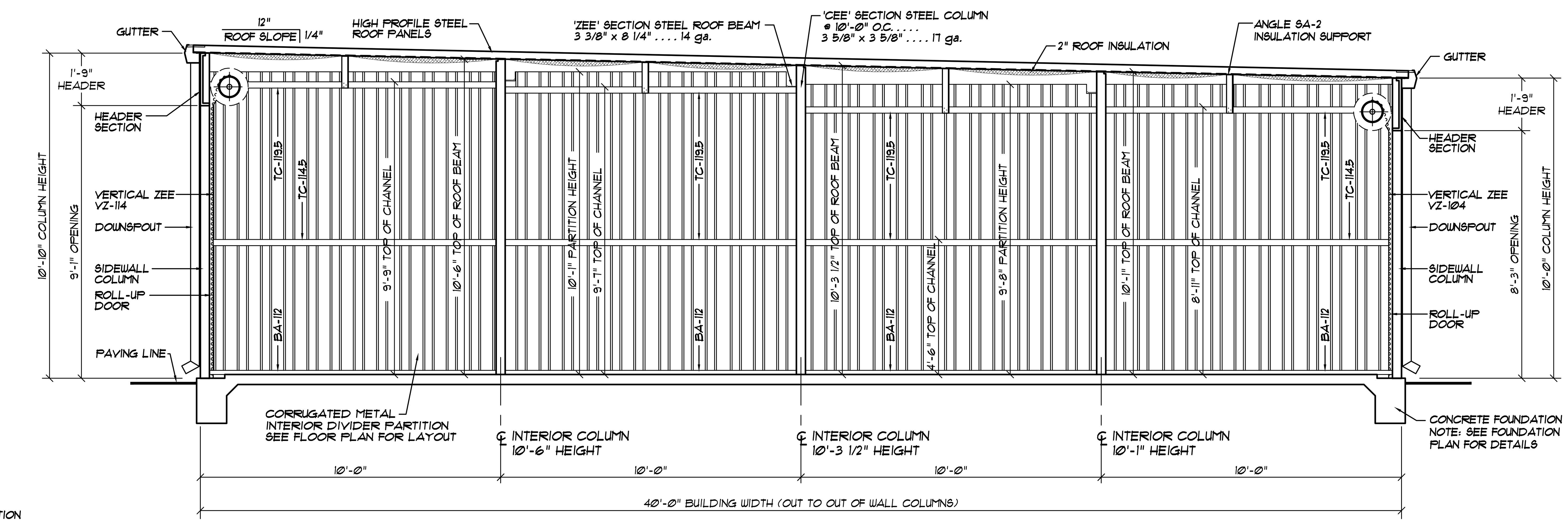
NOTE:
ROOF INSULATION NOT SHOWN FOR CLARITY.



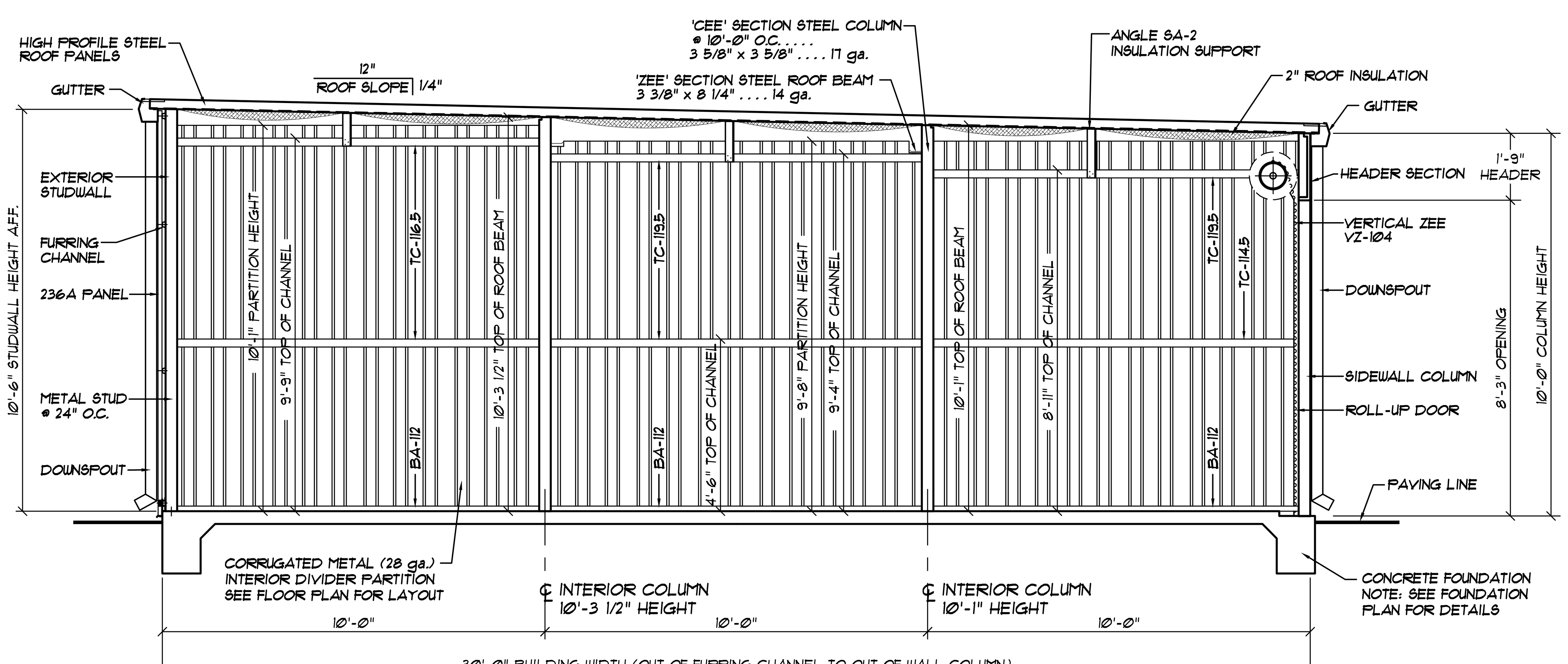
E / S8 — SECTION AT LONG ROOF SPANS
NOT TO SCALE



D / S8 — PLAN VIEW AT METAL "CEE"
NOT TO SCALE



B / S8 — 40'-0" WIDE CROSS SECTION . . . BUILDING "E"
SCALE: 3/8" = 1'-0"



C / S8 — 30'-0" WIDE CROSS SECTION . . . BUILDING "B"
SCALE: 3/8" = 1'-0"

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JUN 10 2024

REVISIONS	DATE	BY

DATE:	1/19/24
DRAWN BY:	J. HARE
SCALE:	AS NOTED
APPROVED BY:	

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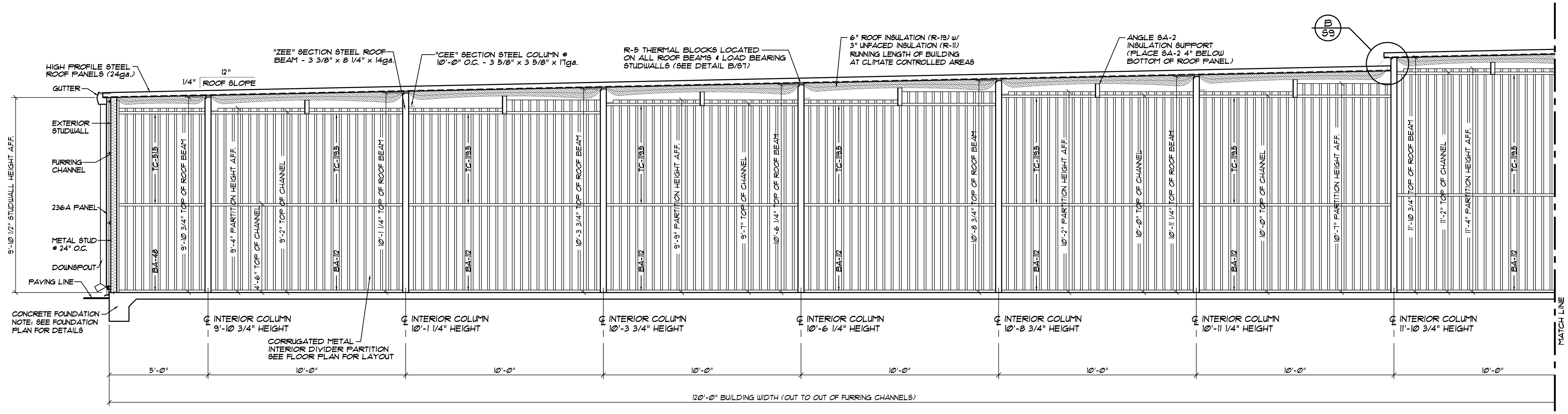
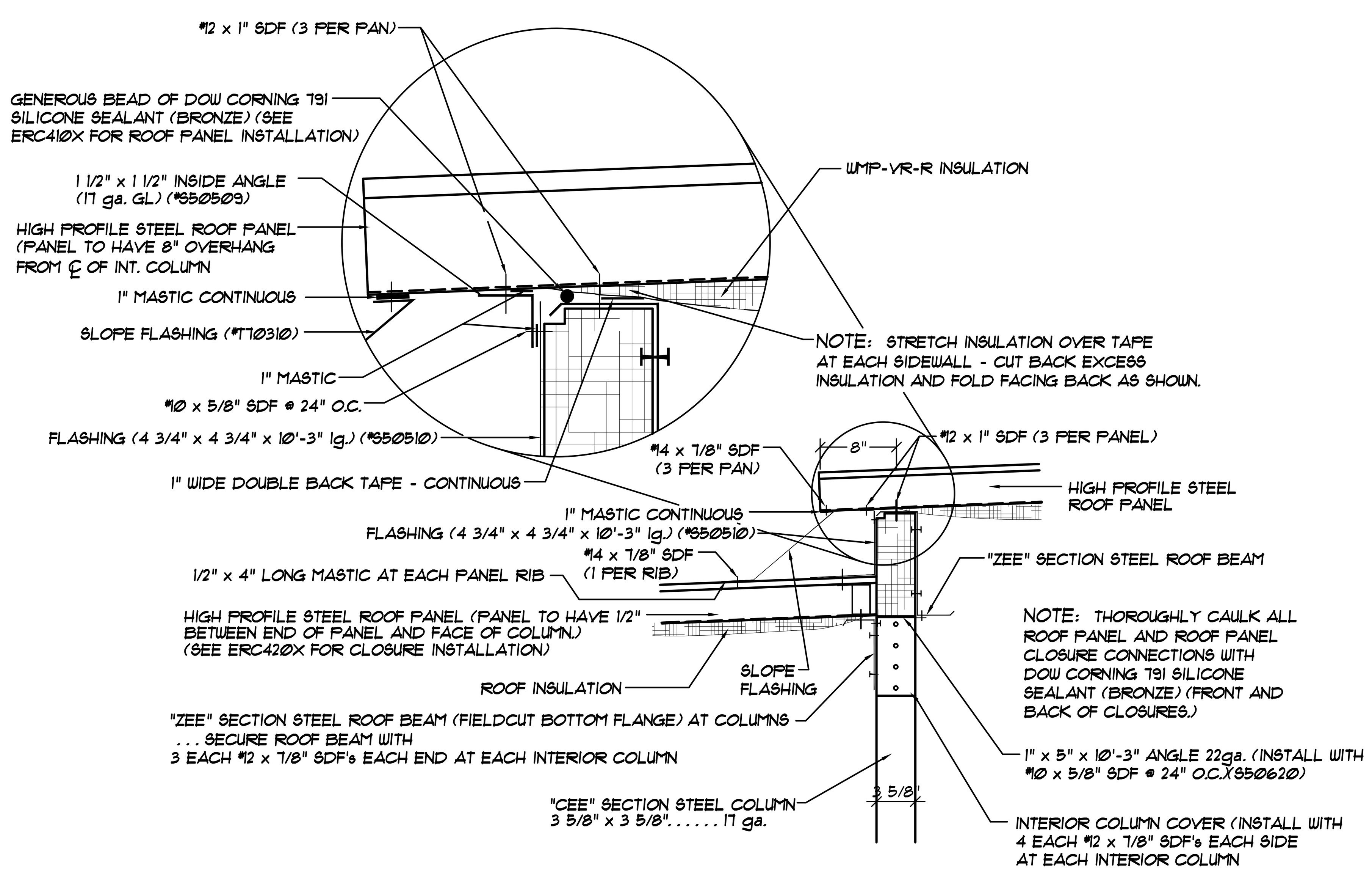
PROJECT NAME:	AMPLE STORAGE
PROJECT ADDRESS:	ERWIN, NORTH CAROLINA
OWNER:	LAMPE MANAGEMENT COMPANY
PROJECT NO.:	NC23237
SHEET TITLE:	CROSS SECTIONS & DETAILS BUILDINGS "B", "D" & "E"
DRAWING NUMBER:	S8

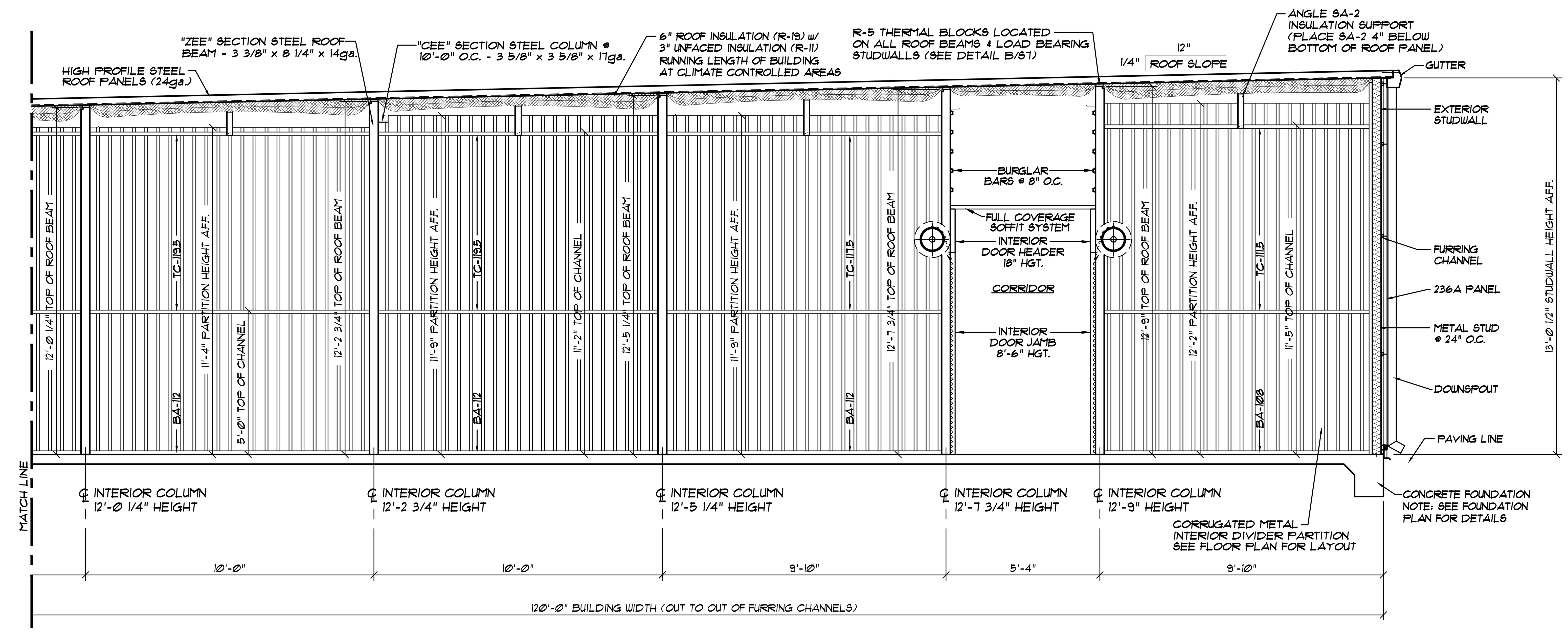
6/6/2024 3:58:17 PM, RELEASE FOR CONSTRUCTION





B S9 SECTION @ ROOF PANEL STEP @ COLUMN/ROOF BEAM

NOT TO SCALE



A S9 120'-0" WIDE CROSS SECTION . . . BUILDING "G"

SCALE: 3/8" = 1'-0"

6/6/2024 3:58:43 PM, RELEASE FOR CONSTRUCTION

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029129 STEVEN W. SCHAUB

JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

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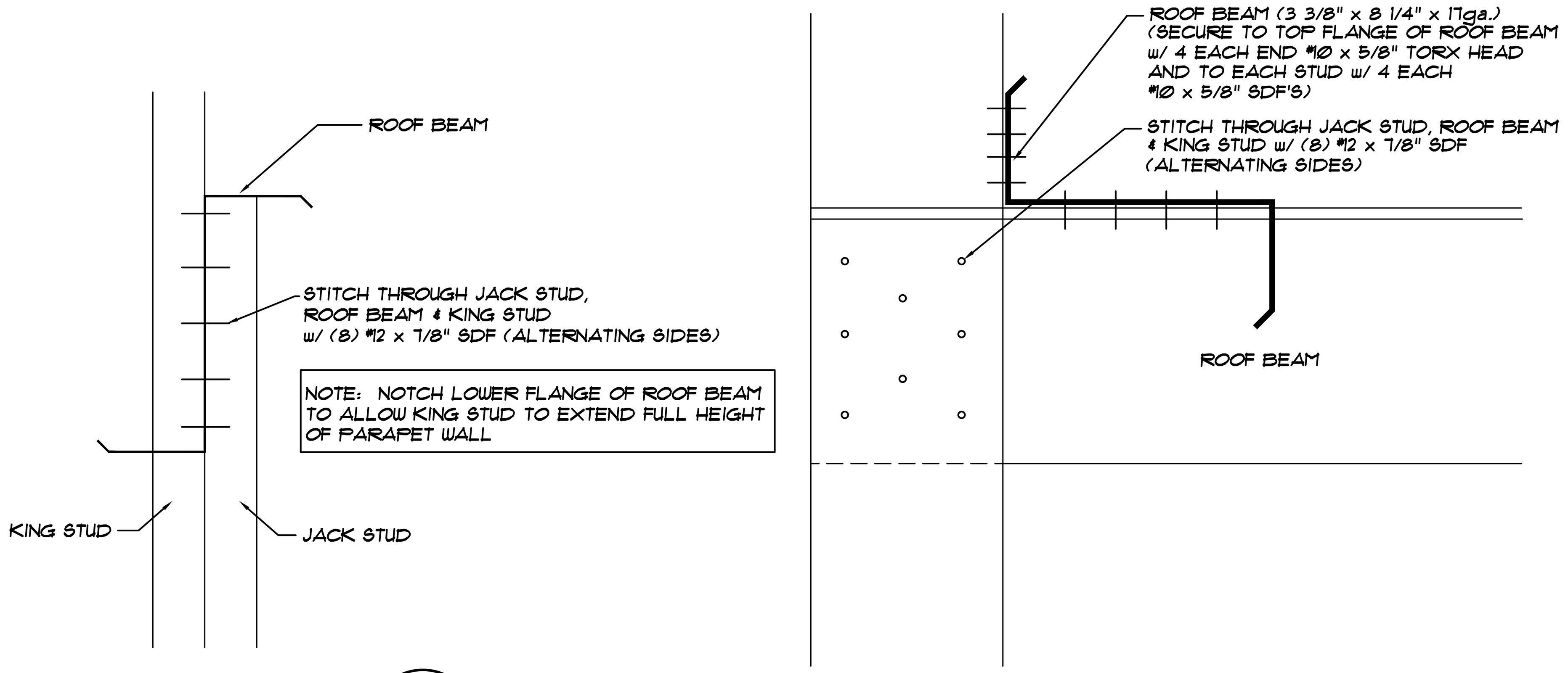
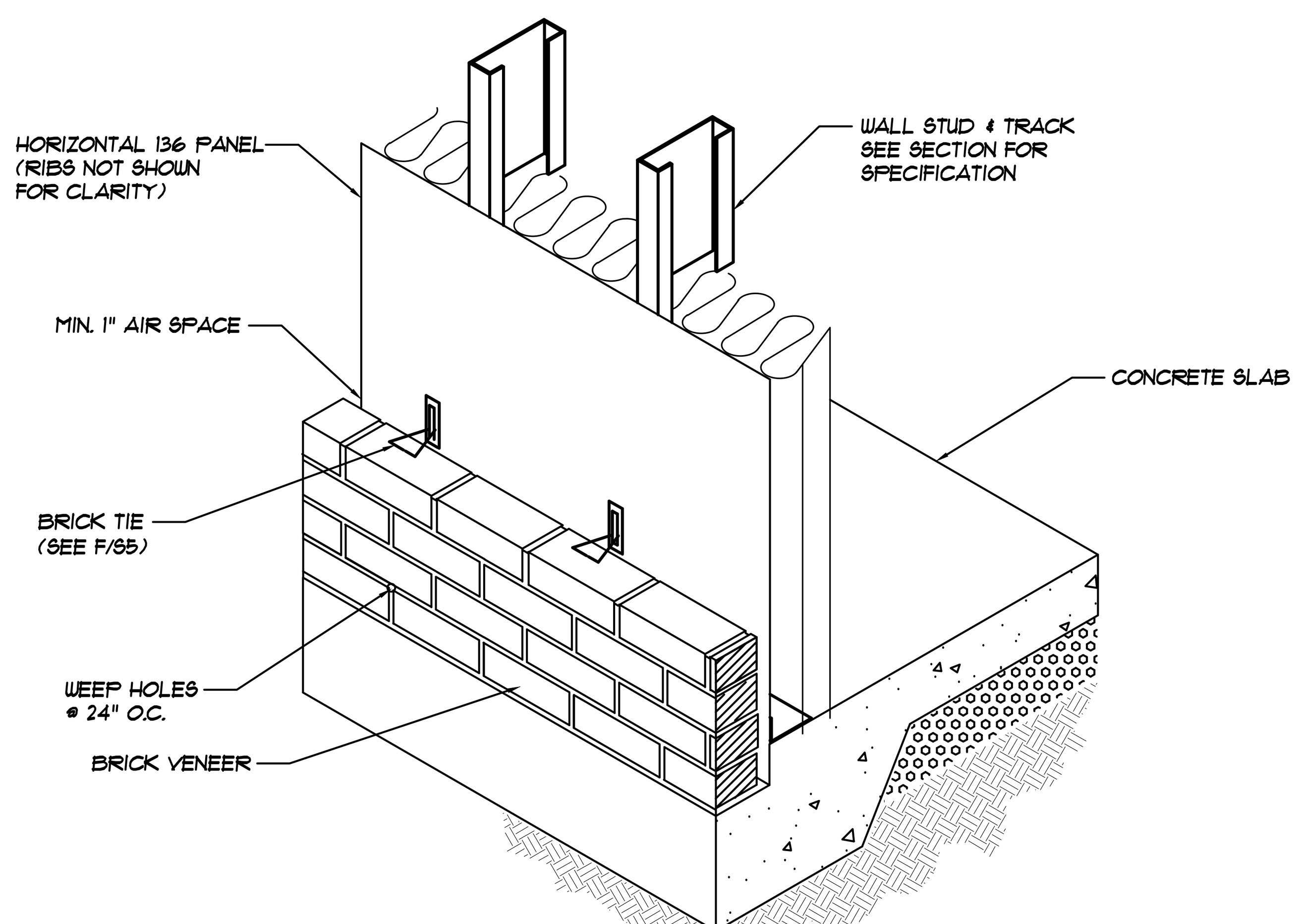
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: CROSS SECTION & DETAIL BUILDING "G"
DRAWING NUMBER: S9



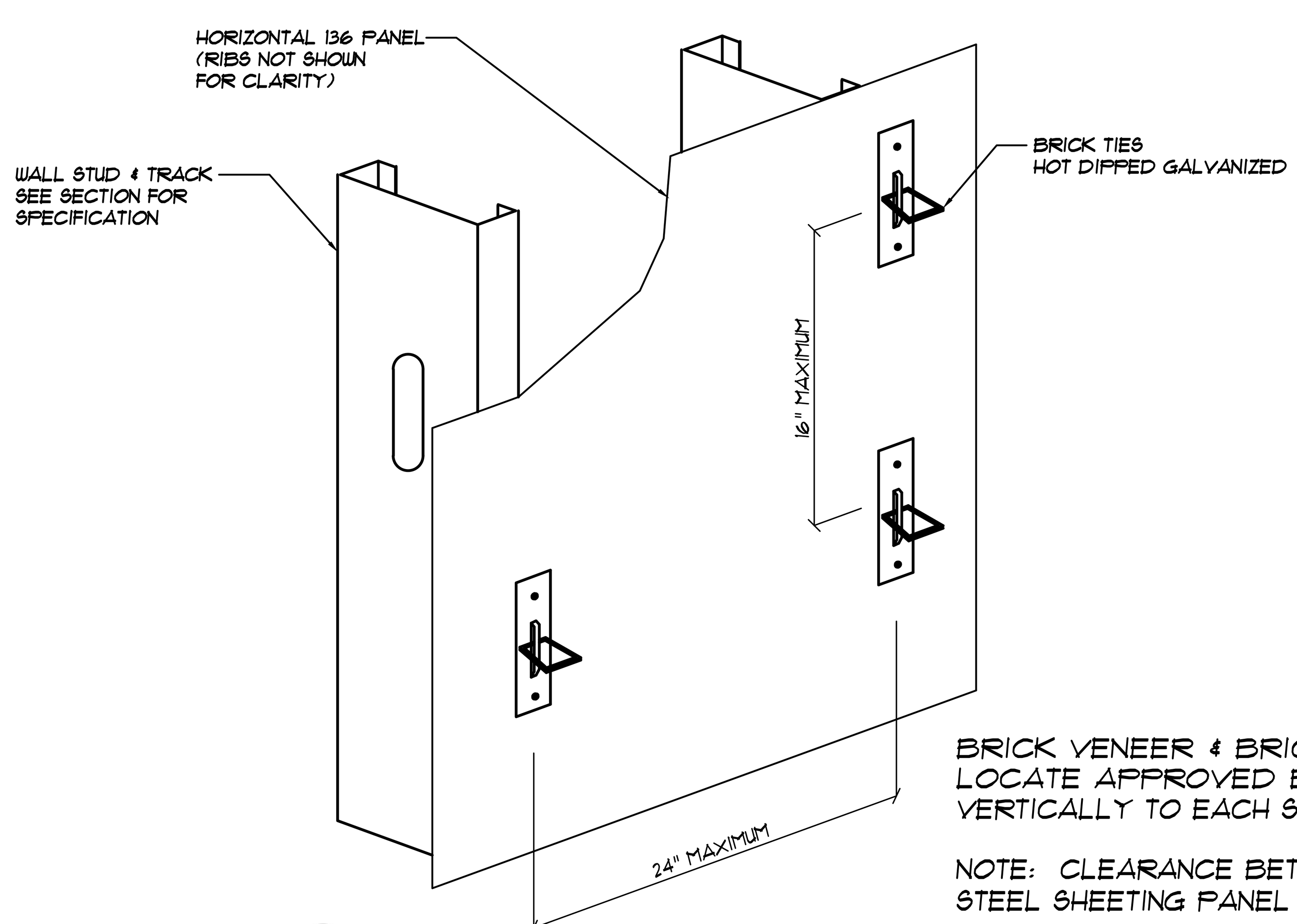
D/S10 DETAIL AT ROOF BEAM TIE IN TO PARAPET WALL

NOT TO SCALE



E/S10 BRICK FINISH w/ WALL MATERIALS

NOT TO SCALE

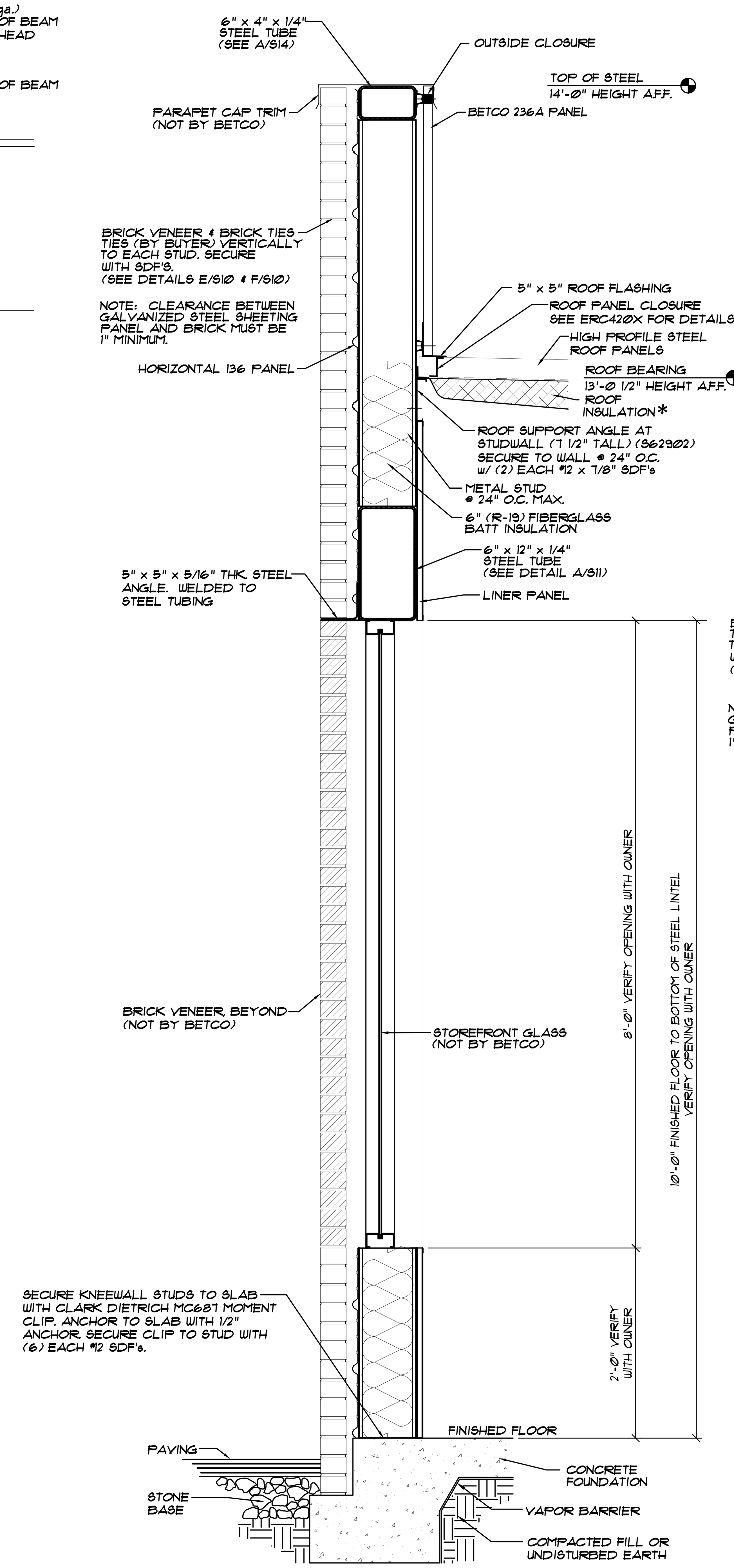


BRICK VENEER & BRICK TIES (BY BUYER) LOCATE APPROVED BRICK TIES @ 16" O.C. VERTICALLY TO EACH STUD. SECURE WITH S.D.F.'S

NOTE: CLEARANCE BETWEEN GALVANIZED STEEL SHEETING PANEL AND BRICK MUST BE 1" MINIMUM.

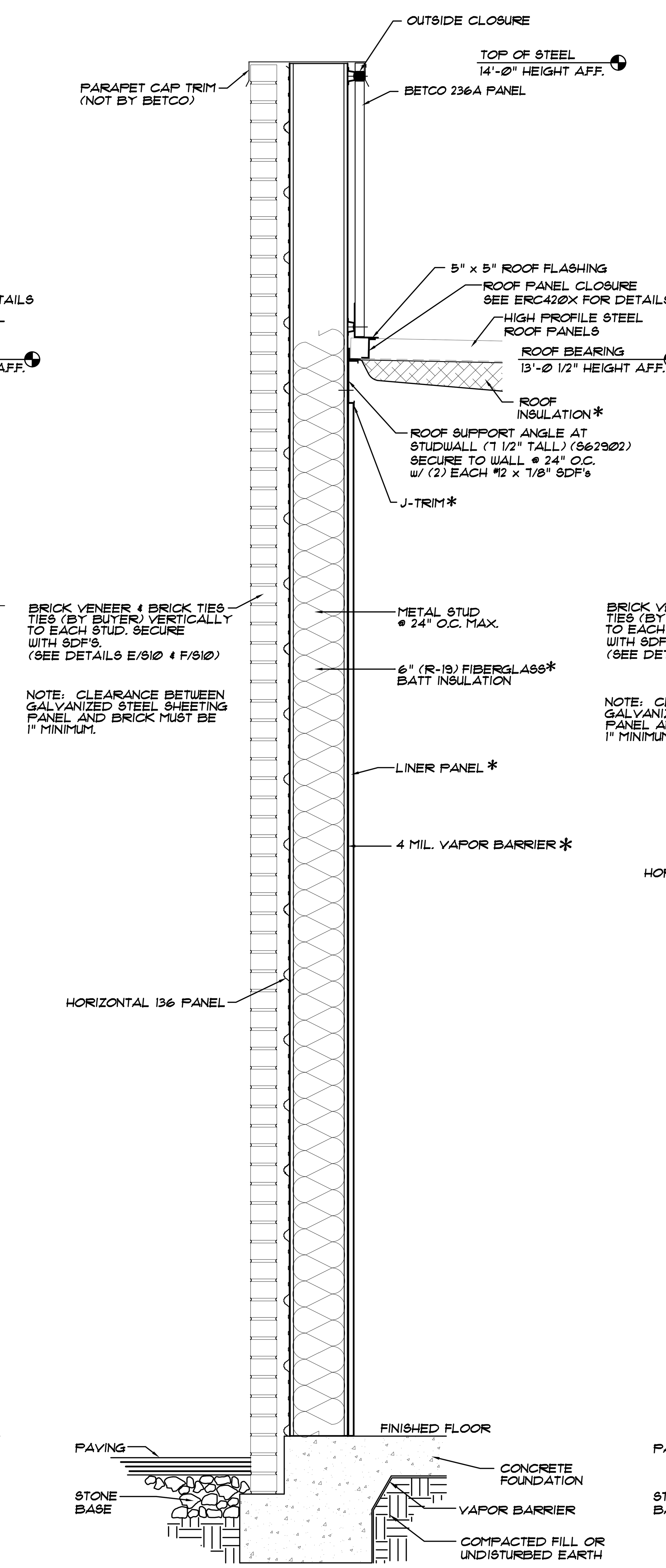
F/S10 BRICK BACKUP WALL SYSTEM

NOT TO SCALE



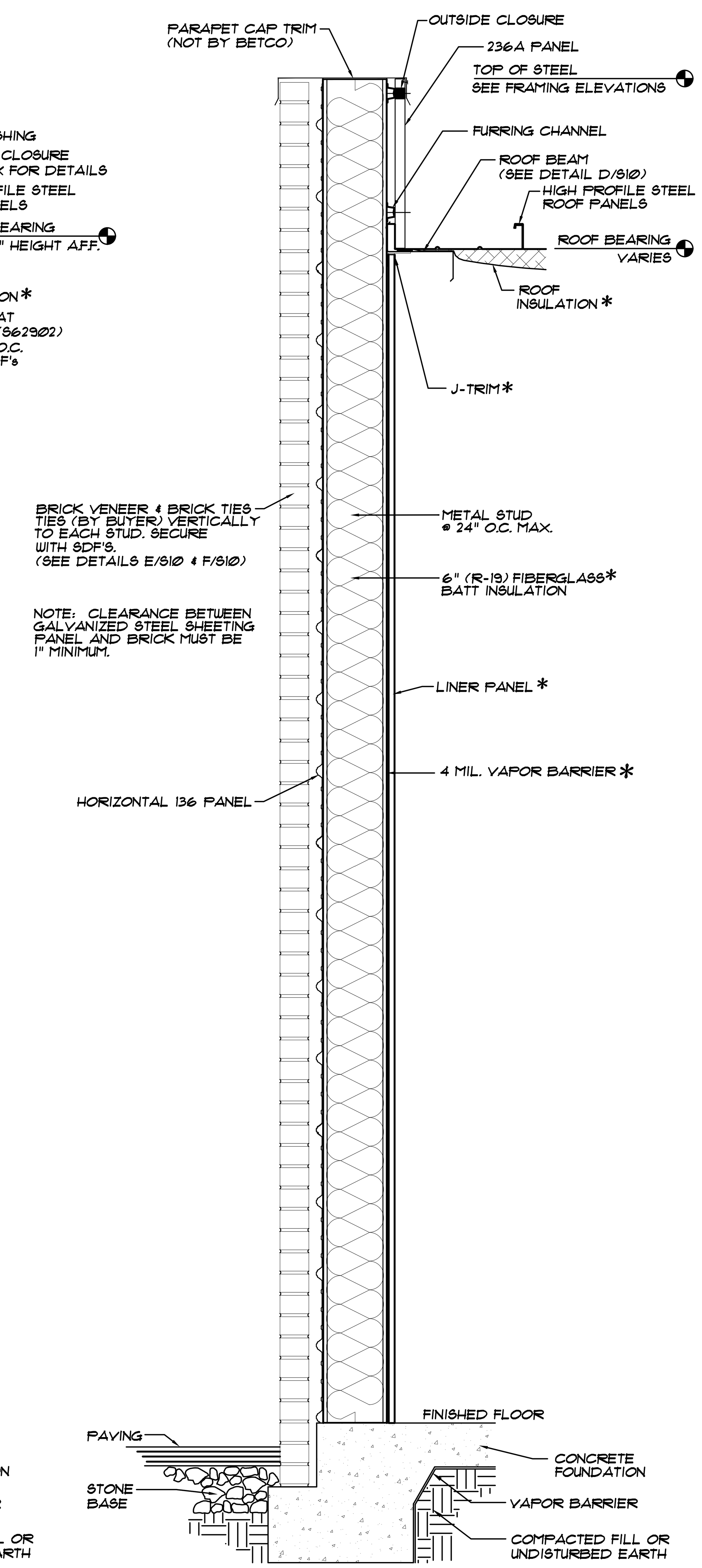
C/S10 SECTION AT SIDEWALL

NOT TO SCALE



B/S10 SECTION AT SIDEWALL

NOT TO SCALE



A/S10 SECTION AT ENDWALL

NOT TO SCALE

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JUN 10 2024

REVISIONS | DATE | BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

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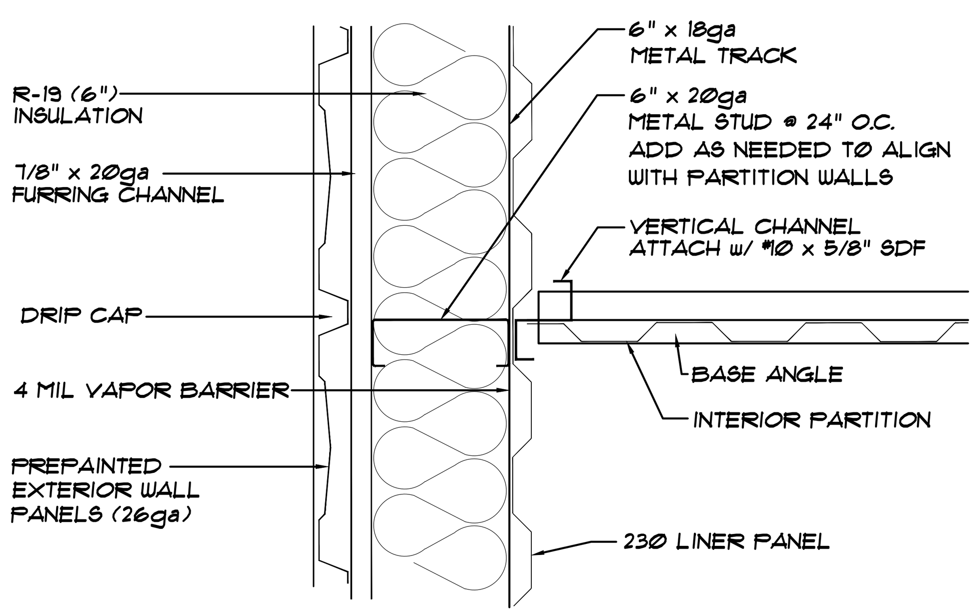
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: BUILDING DETAILS BUILDING "A"
DRAWING NUMBER: S10

6/6/2024 3:59:10 PM, RELEASE FOR CONSTRUCTION

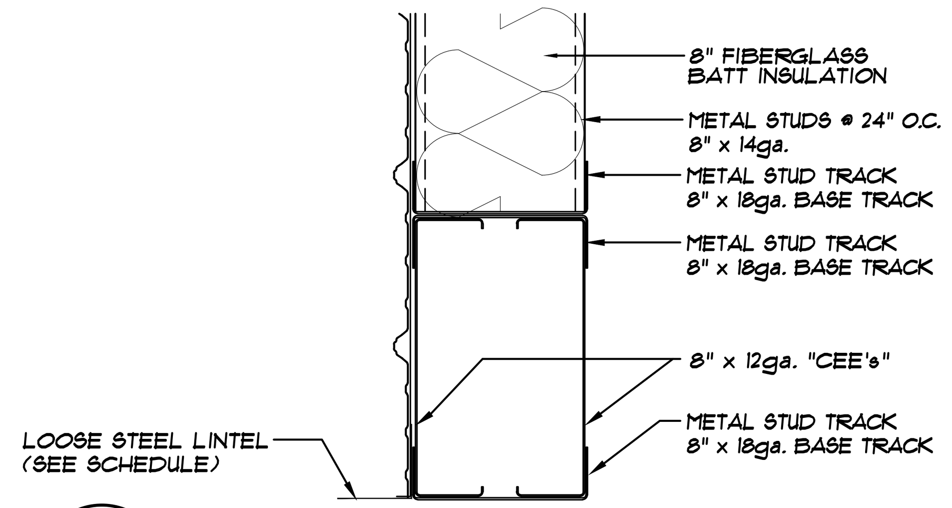
BRICK LINTEL SCHEDULE	
MAX OPENING WIDTH	STEEL ANGLE
4'–0"	L 3" x 3 1/2" x 1/4" LLH

NOTES:
1. PROVIDE 8" MINIMUM BEARING.
2. ALL EXPOSED LINTELS TO BE HOT DIP GALVANIZED.
3. ABOVE SCHEDULE FOR LOOSE LINTELS. (NOT BY BETCO)



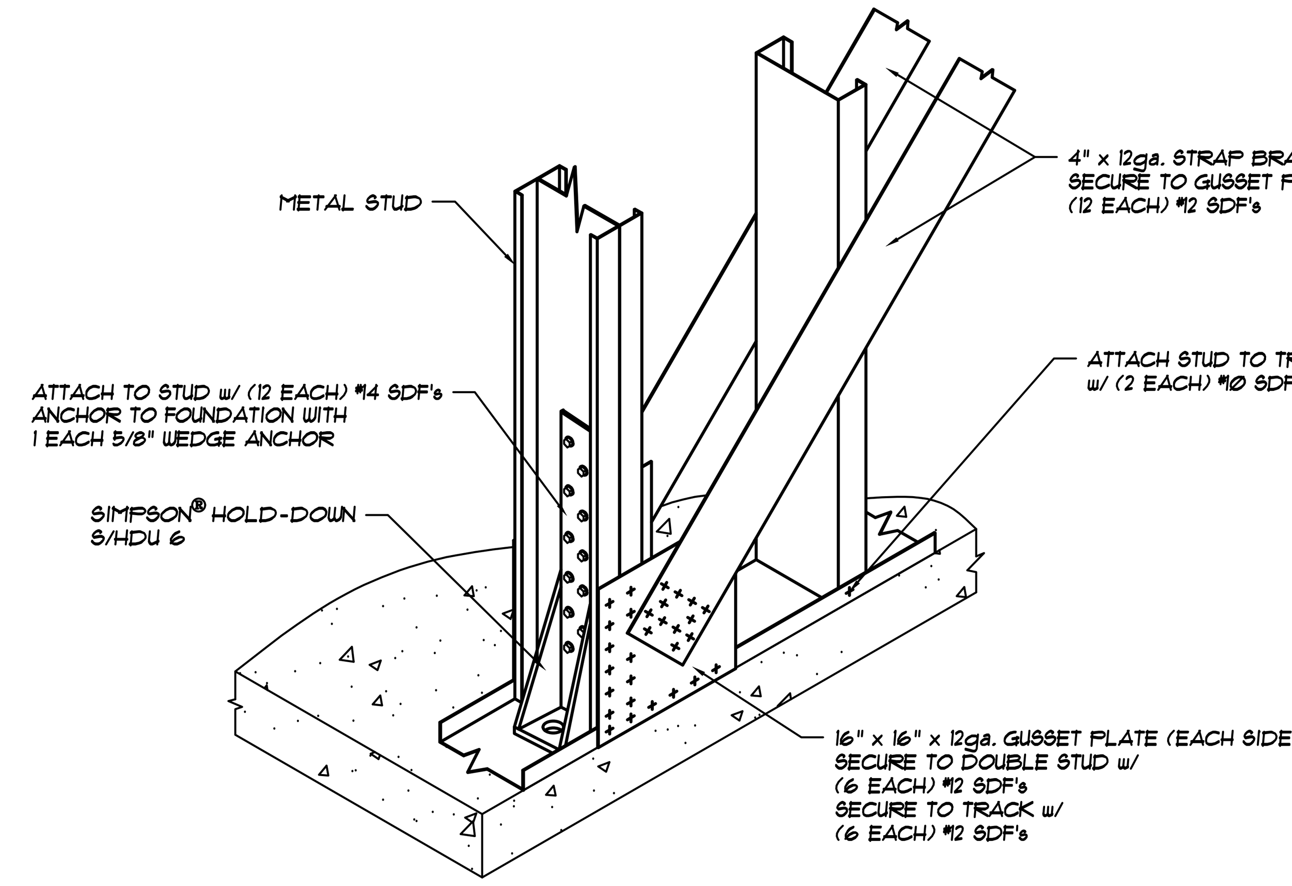
G S11 PARTITION INSTALLATION AT INSULATED EXTERIOR STUDWALL

NOT TO SCALE



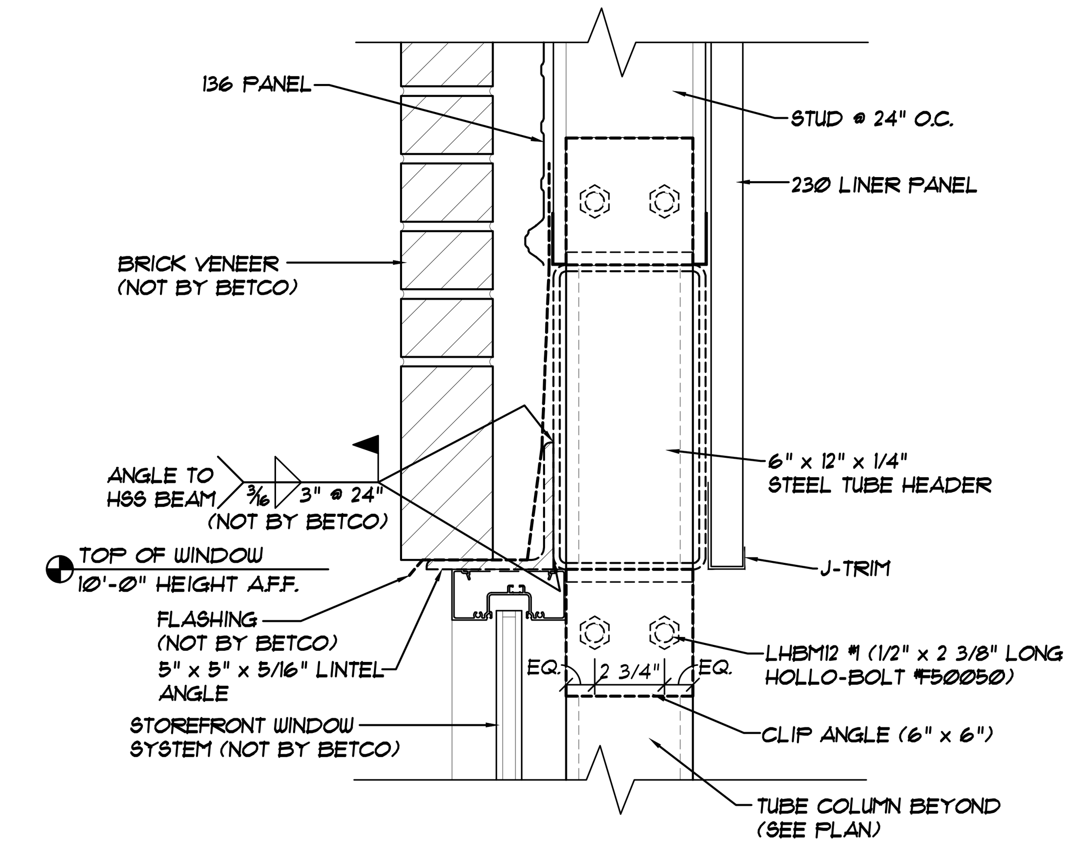
F S11 TYPICAL HEADER DETAIL @ BRICK

NOT TO SCALE



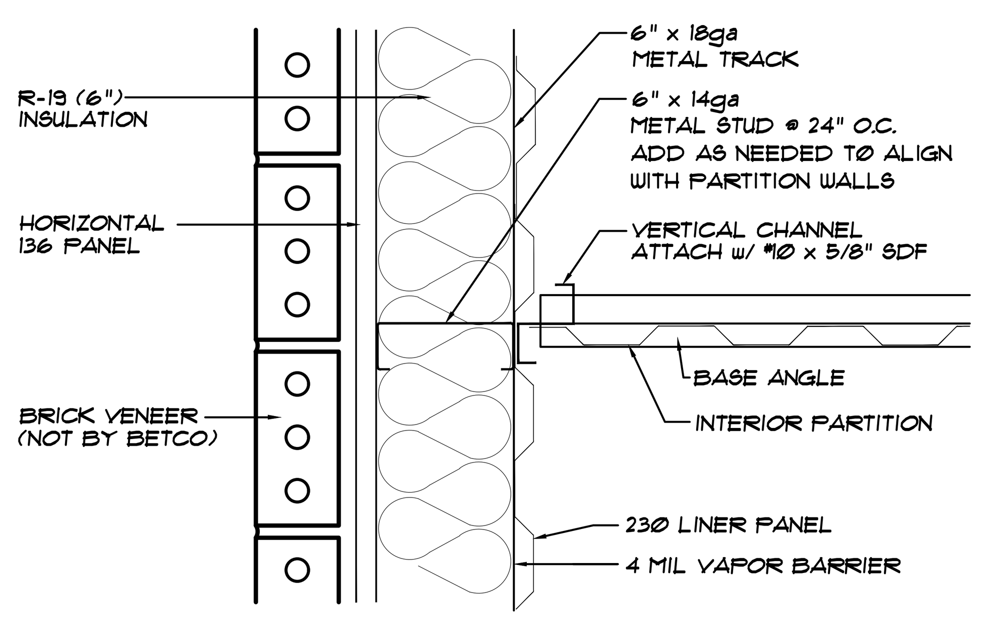
D S11 SHEAR WALL UPLIFT ANCHORING

SCALE: NONE



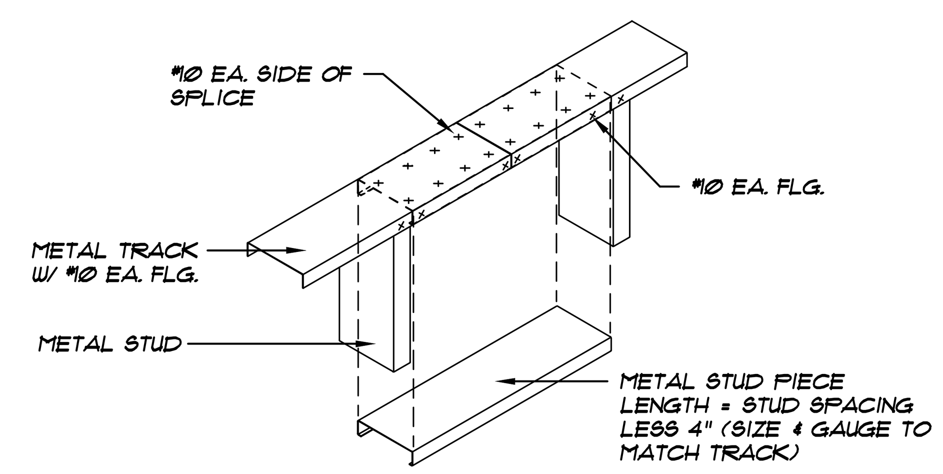
A S11 STEEL COLUMN DETAIL

NOT TO SCALE



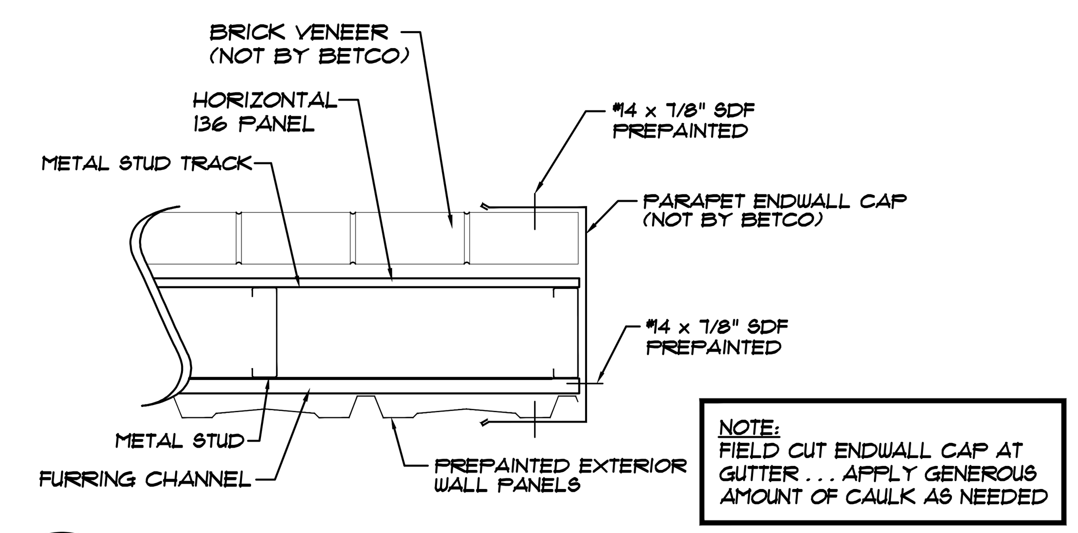
H S11 PARTITION INSTALLATION AT INSULATED EXTERIOR STUDWALL

NOT TO SCALE



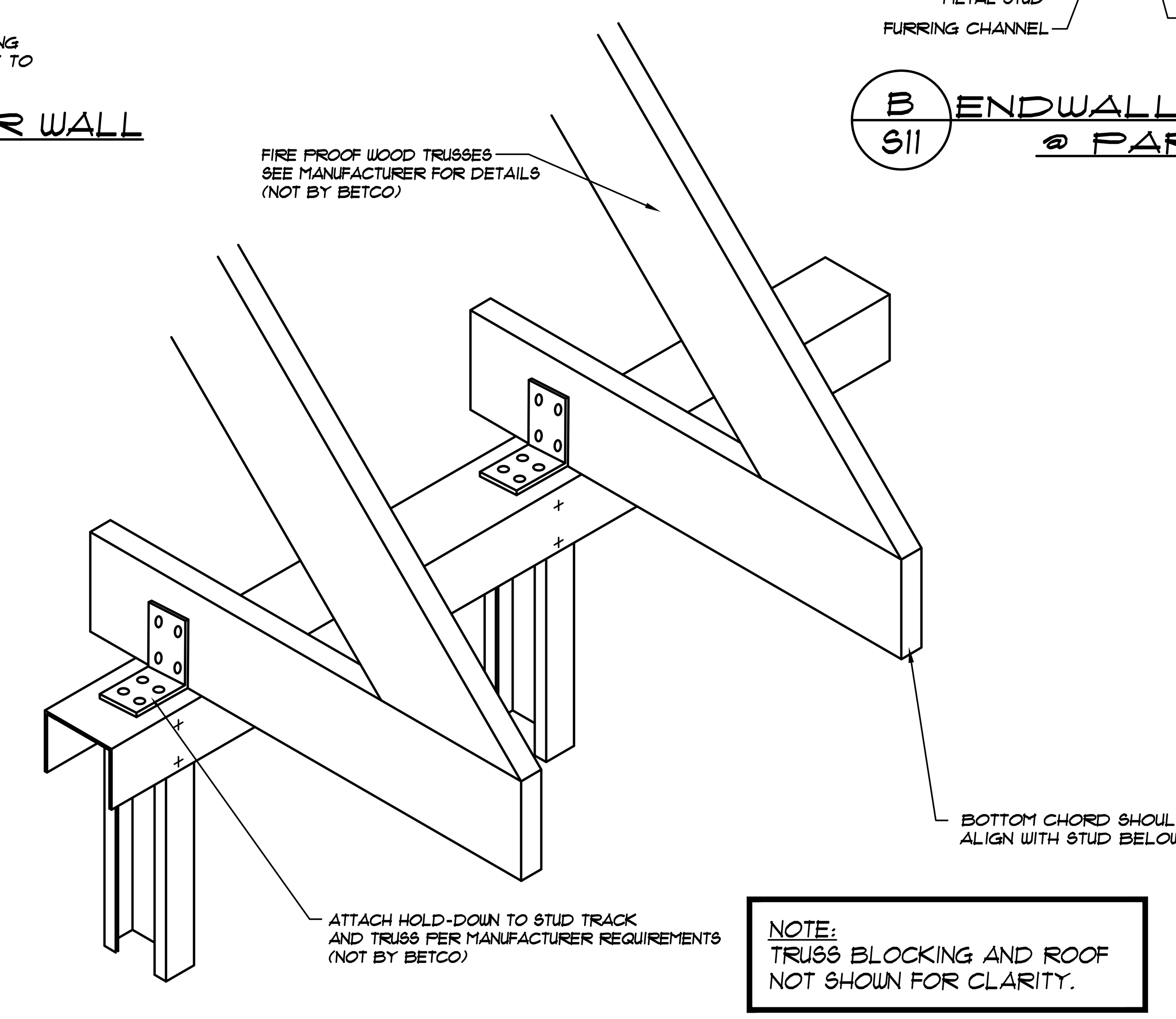
E S11 TRACK SPLICE DETAIL - EXTERIOR WALL

NOT TO SCALE



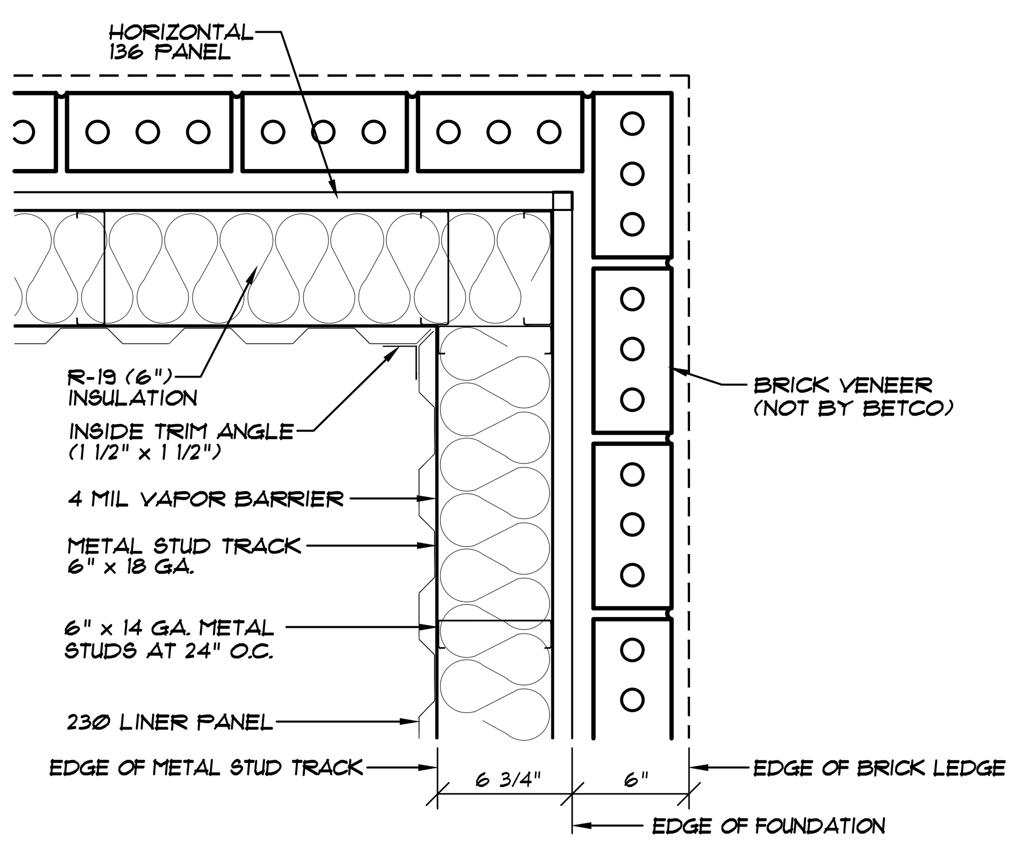
B S11 ENDWALL CAP FLASHING @ PARAPET WALL

NOT TO SCALE



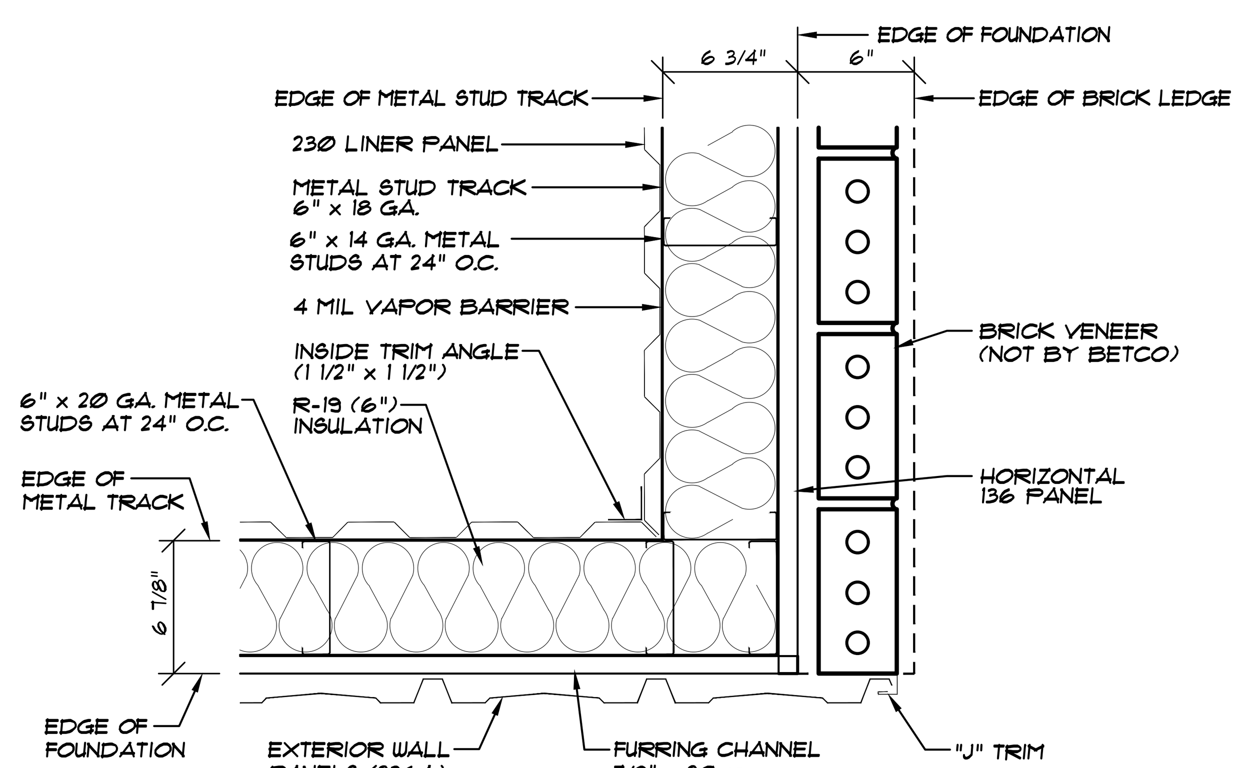
C S11 HOLD-DOWN CLIPS

NOT TO SCALE



K S11 INSULATED STUDWALL CORNER @ BRICK VENEER DETAIL

NOT TO SCALE



J S11 INSULATED STUDWALL CORNER DETAIL

NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

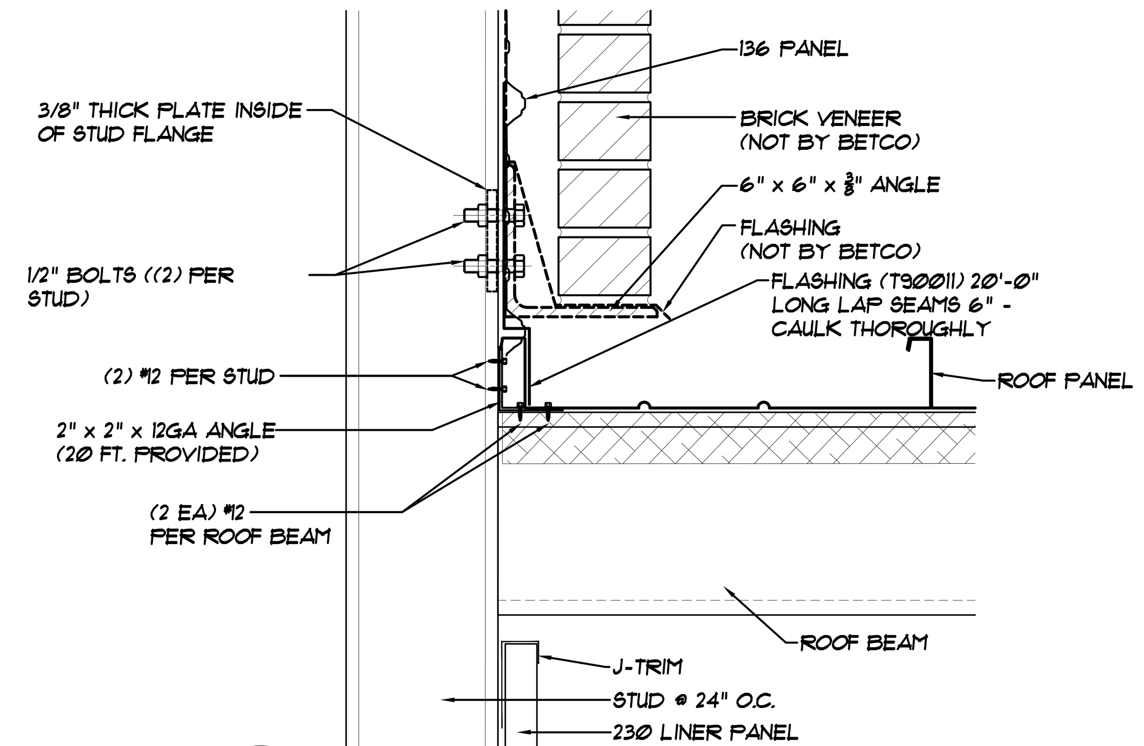
REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: BUILDING DETAILS BUILDING "A"
DRAWING NUMBER: S11

6/6/2024 3:59:41 PM, RELEASE FOR CONSTRUCTION

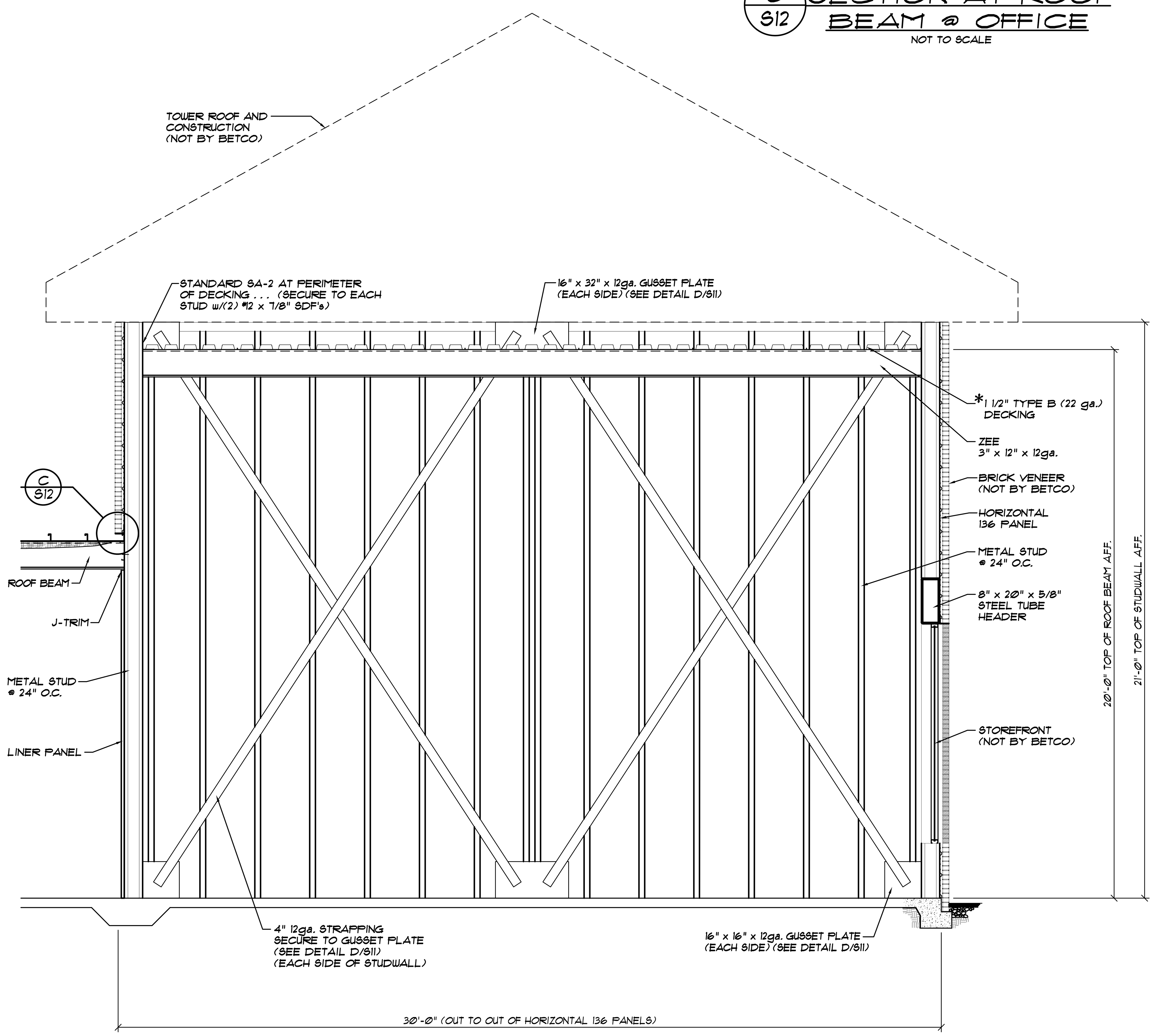


C / S12 SECTION AT ROOF BEAM @ OFFICE

NOT TO SCALE

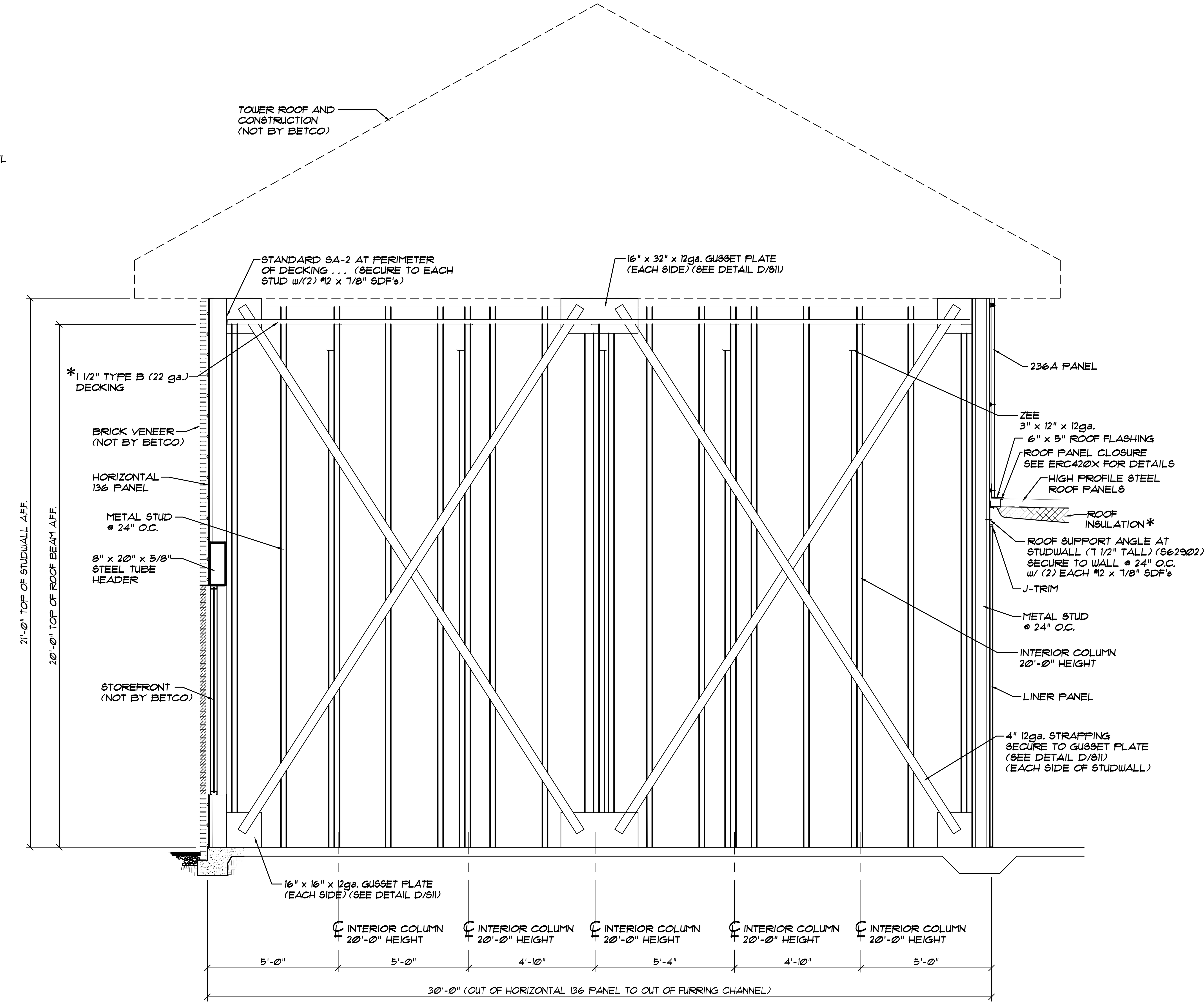
NOTE:

* • SECURE 1 1/2" TYPE B DECKING TO ZEE'S WITH 36/7 PATTERN WITH #12x7/8" SDF's @ 6" O.C. INTO ROOF BEAMS AND #10 @ 12" O.C. STITCH SCREWS.



B / S12 30'-0" WIDE CROSS SECTION @ OFFICE . . . BUILDING "A"

SCALE: 3/8" = 1'-0"



A / S12 30'-0" WIDE CROSS SECTION @ OFFICE . . . BUILDING "A"

SCALE: 3/8" = 1'-0"

PREFABRICATED FIRE PROOF WOOD TRUSS

PREFABRICATED FIRE PROOF WOOD TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER'S ENGINEER AND SUBMITTED FOR APPROVAL WITH A REGISTERED ENGINEER'S SEAL. DESIGN CRITERIA SHALL BE CLEARLY LABELED WITH RATED LOAD CAPACITY OF ALL TRUSS TO TRUSS CONNECTOR, REACTIONS, SIZES OF ALL MEMBERS, DEAD, LIVE AND WIND LOADINGS WITH SPECIFIED SPACING.

NOTES:

1. SEE FLOOR PLAN FOR LOCATION OF LOAD BEARING WALLS THAT SUPPORT WOOD TRUSSES SPACED AT 2'-0" O.C. MAX.
2. SEE TRUSS MANUFACTURER DRAWINGS FOR ROOF FRAMING PLAN OF WOOD TRUSS AND ROOF DECKING.
3. SEE TRUSS MANUFACTURER FOR PRE-ENGINEERED WOOD TRUSSES AND TRUSS BLOCKING, BRIDGING, REQUIRED FOR STRUCTURAL STABILITY, AS WELL AS BENT METAL REQUIRED FOR DECK EDGE ATTACHMENT AT EAVES, HIPS, AND ROOF PERIMETER.

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228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

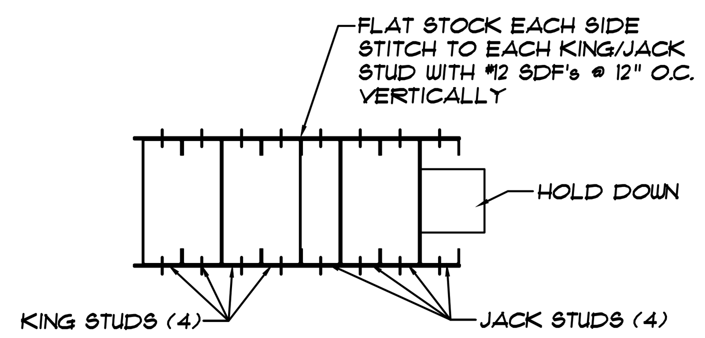
REVISIONS	DATE	BY

DATE:	1/19/24
DRAWN BY:	J. HARE
SCALE:	AS NOTED
APPROVED BY:	

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

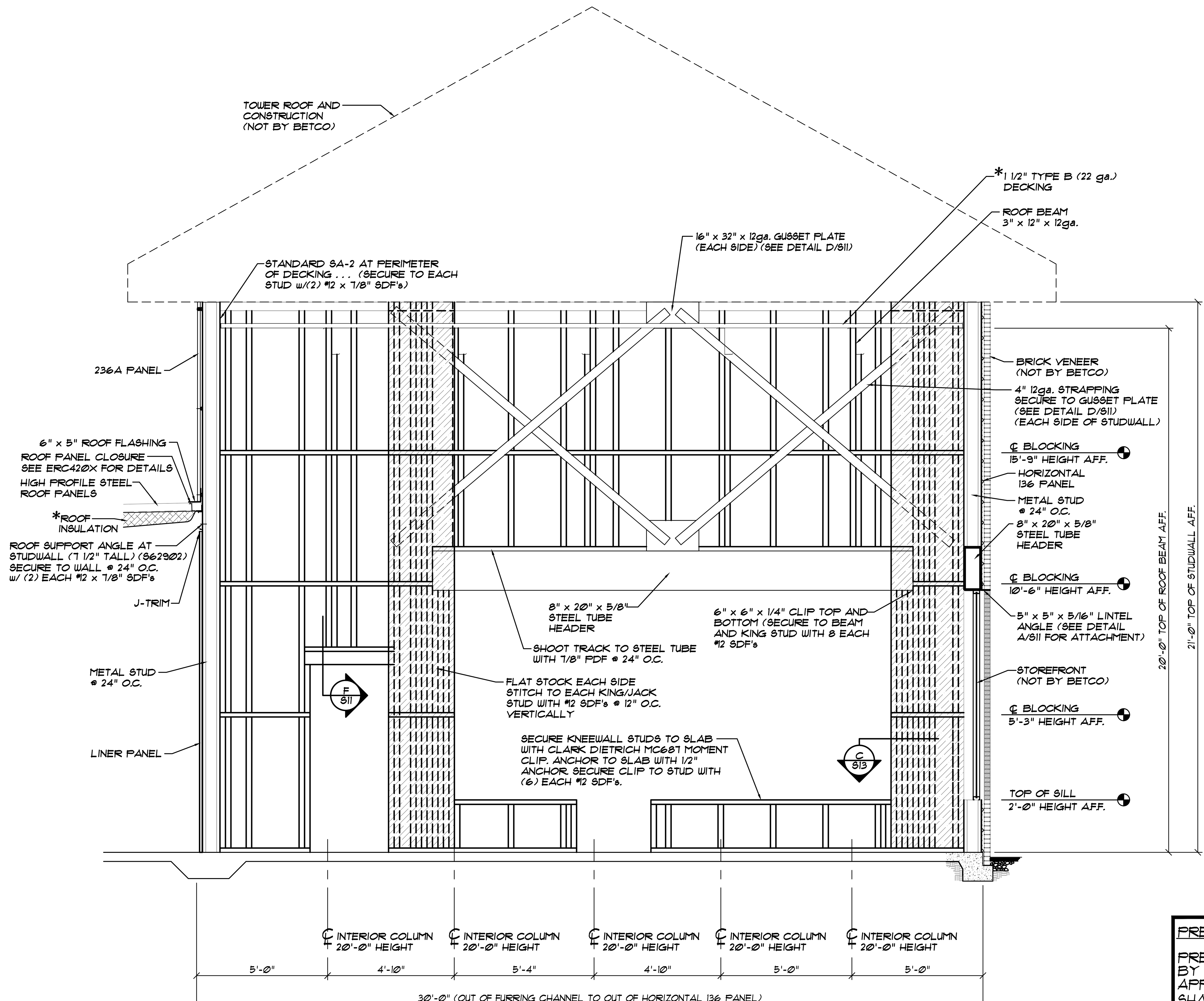
PROJECT NAME:	AMPLE STORAGE
PROJECT ADDRESS:	ERWIN, NORTH CAROLINA
OWNER:	LAMPE MANAGEMENT COMPANY
PROJECT NO.:	NC23237
SHEET TITLE:	SECTIONS, DETAIL & NOTES BUILDING "A"
DRAWING NUMBER:	S12

6/6/2024 4:00:06 PM, RELEASE FOR CONSTRUCTION

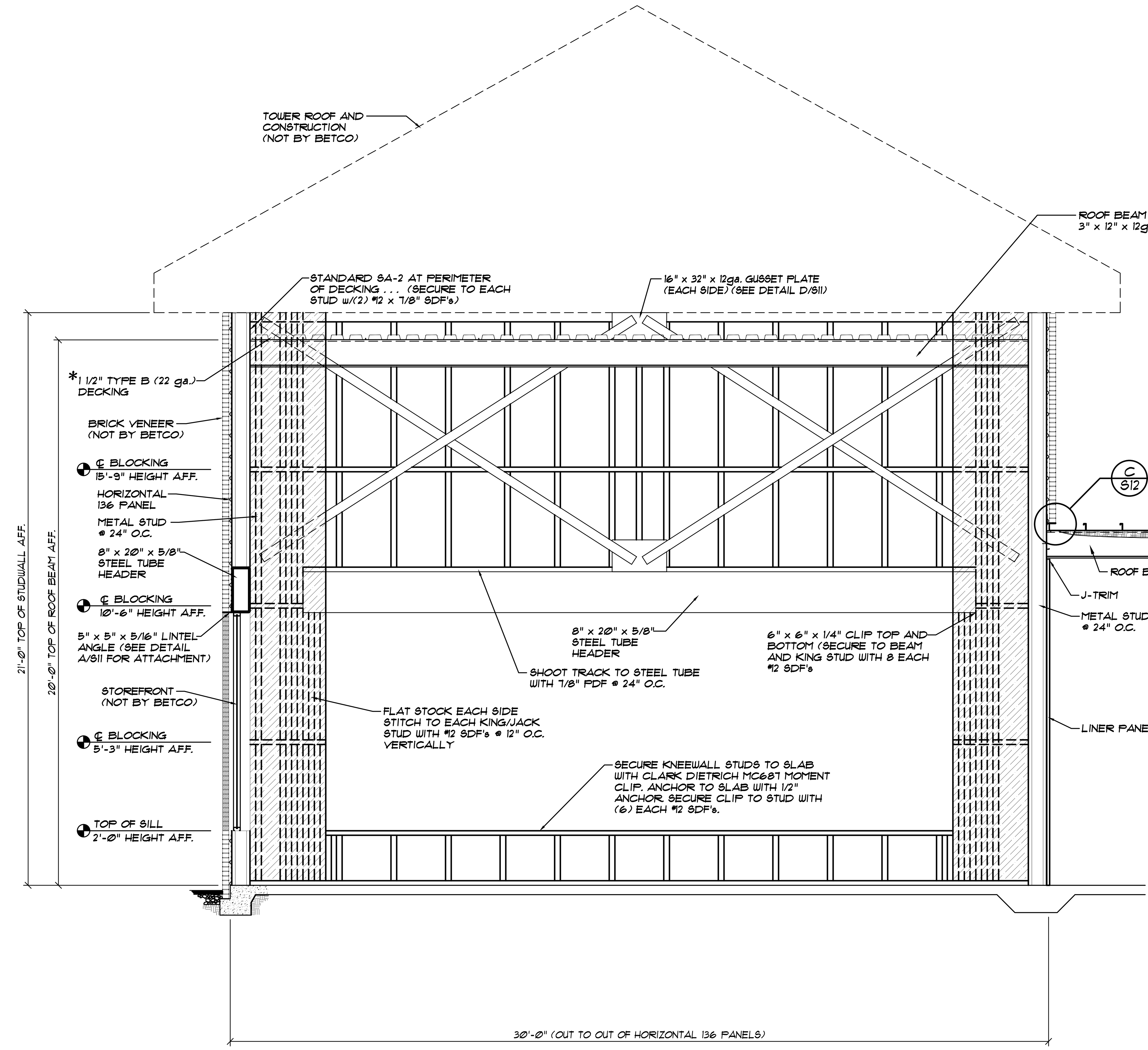


C/S13 STUD DETAIL
NOT TO SCALE

NOTE:
* = SECURE 1 1/2" TYPE B DECKING TO ZEES WITH 36/7 PATTERN WITH #12x7/8" SDF's @ 6" O.C. INTO ROOF BEAMS AND #10 @ 12" O.C. STITCH SCREWS.



B/S13 FRAMING ELEVATION @ OFFICE . . . BUILDING "A"
SCALE: 3/8" = 1'-0"



A/S13 FRAMING ELEVATION @ OFFICE . . . BUILDING "A"
SCALE: 3/8" = 1'-0"

6/6/2024 4:00:58 PM, RELEASE FOR CONSTRUCTION

PREFABRICATED FIRE PROOF WOOD TRUSS

PREFABRICATED FIRE PROOF WOOD TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER'S ENGINEER AND SUBMITTED FOR APPROVAL WITH A REGISTERED ENGINEER'S SEAL. DESIGN CRITERIA SHALL BE CLEARLY LABELED WITH RATED LOAD CAPACITY OF ALL TRUSS TO TRUSS CONNECTOR, REACTIONS, SIZES OF ALL MEMBERS, DEAD, LIVE AND WIND LOADINGS WITH SPECIFIED SPACING.

NOTES:
1. SEE FLOOR PLAN FOR LOCATION OF LOAD BEARING WALLS THAT SUPPORT WOOD TRUSSES SPACED AT 2'-0" O.C. MAX.
2. SEE TRUSS MANUFACTURER DRAWINGS FOR ROOF FRAMING PLAN OF WOOD TRUSS AND ROOF DECKING.
3. SEE TRUSS MANUFACTURER FOR PRE-ENGINEERED WOOD TRUSSES AND TRUSS BLOCKING, BRIDGING, REQUIRED FOR STRUCTURAL STABILITY, AS WELL AS BENT METAL REQUIRED FOR DECK EDGE ATTACHMENT AT EAVES, HIPS, AND ROOF PERIMETER.

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Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE:	1/19/24
DRAWN BY:	J. HARE
SCALE:	AS NOTED
APPROVED BY:	

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PROJECT NAME:	AMPLE STORAGE		
PROJECT ADDRESS:	ERWIN, NORTH CAROLINA		
OWNER:	LAMPE MANAGEMENT COMPANY	PROJECT NO.:	NC23237
SHEET TITLE:	SECTIONS, DETAIL & NOTES BUILDING "A"	DRAWING NUMBER:	S13

A/S14 FRAMING ELEVATION SIDEWALL . . . BUILDING "A"

SCALE: 1/4" = 1'-0"

LEGEND:

1. 6" x 18ga. STUD TRACK ANCHOR EACH WITH (4) EACH - 3/8" x 3" KB-TZ2 ANCHORS @ 30" O.C.
2. 1 EACH - METAL STUD (6" x 2" FLANGE x 14ga.)
3. TOP TRACK 6" x 3" DEEP x 12ga. - FASTEN TO EACH STUD WITH 2 EACH #12 x 7/8" SDF's PER FLANGE
4. 2 EACH - METAL STUD AT EACH ROOF BEAM LOCATION - SIMILAR TO C/601X.
5. 8" x 18ga. STUD TRACK ANCHOR EACH WITH 4 EACH - 3/8" x 3" WEDGE (2" EMBEDMENT)
6. 1 EACH - METAL STUD (8" x 2 1/2" x 14ga.)
7. TOP TRACK 8" x 3" DEEP x 14ga. - FASTEN TO EACH STUD WITH 2 EACH #12 x 7/8" SDF's PER FLANGE
8. STRAP BRACING FOR BLOCKING (SEE DETAIL "A" ON ERC631X)

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NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

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STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FRAMING ELEVATION & NOTES BUILDING "A"
DRAWING NUMBER: S14

6/6/2024 4:01:23 PM, RELEASE FOR CONSTRUCTION

A FRAMING ELEVATION ENDWALL . . . BUILDING "A"
S15 SCALE: 1/4" = 1'-0"

B FRAMING ELEVATION ENDWALL . . . BUILDING "A"
S15 SCALE: 1/4" = 1'-0"

LEGEND:

1. 6" x 18ga. STUD TRACK ANCHOR EACH WITH (4) EACH - 3/8" x 3" KB-TZ2 ANCHORS @ 30" O.C.
2. 1 EACH - METAL STUD (6" x 2" FLANGE x 14ga.)
3. TOP TRACK 6" x 3" DEEP x 12ga. - FASTEN TO EACH STUD WITH 2 EACH #12 x 7/8" SDF's PER FLANGE
4. 2 EACH - METAL STUD AT EACH ROOF BEAM LOCATION - SIMILAR TO C/601X.
5. 8" x 18ga. STUD TRACK ANCHOR EACH WITH 4 EACH - 3/8" x 3" WEDGE (2" EMBEDMENT)
6. 1 EACH - METAL STUD (8" x 2 1/2" x 14ga.)
7. TOP TRACK 8" x 3" DEEP x 14ga. - FASTEN TO EACH STUD WITH 2 EACH #12 x 7/8" SDF's PER FLANGE
8. STRAP BRACING FOR BLOCKING (SEE DETAIL "A" ON ERC631X)

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NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
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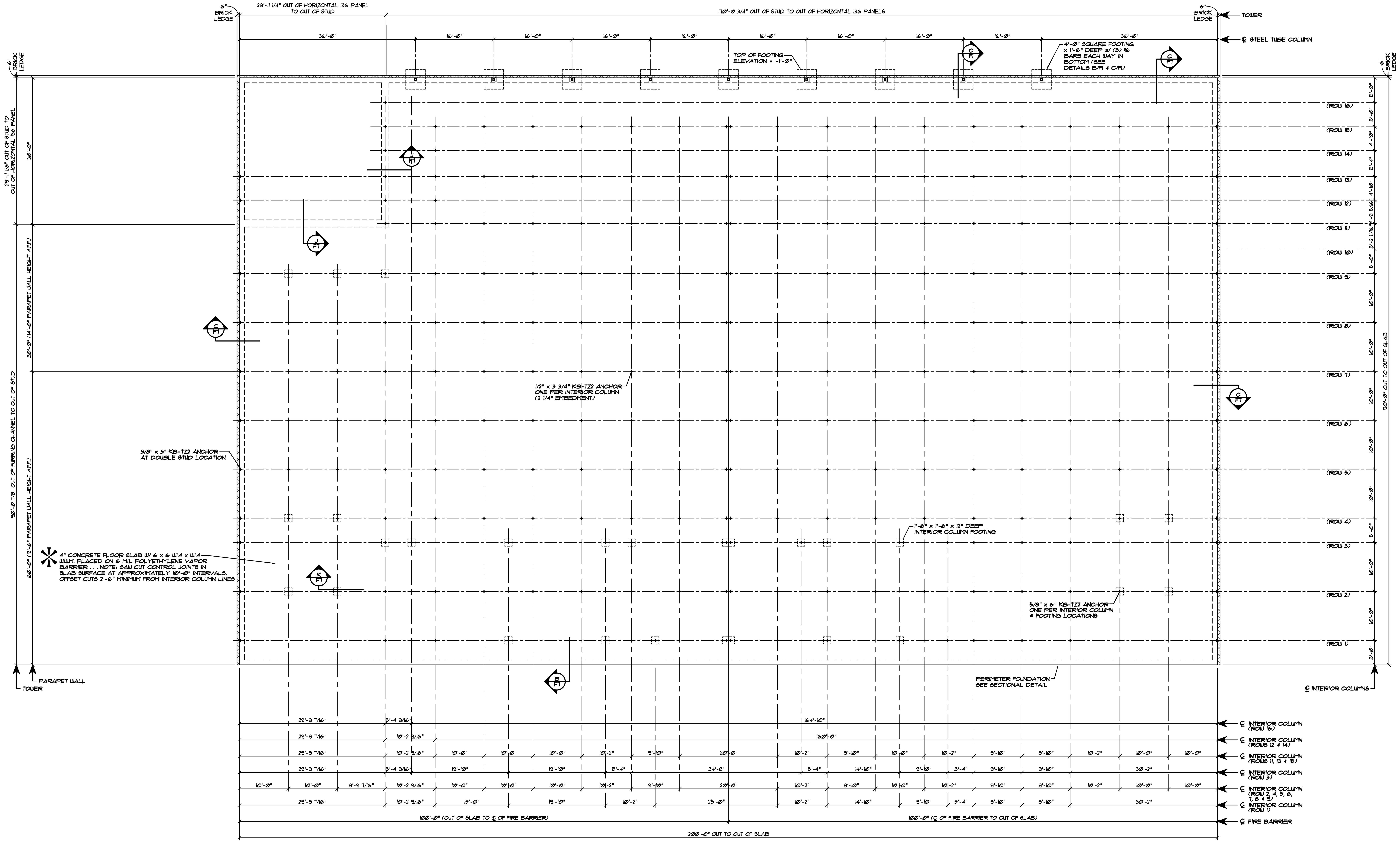
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FRAMING ELEVATIONS & NOTES BUILDING "A"
DRAWING NUMBER: S15

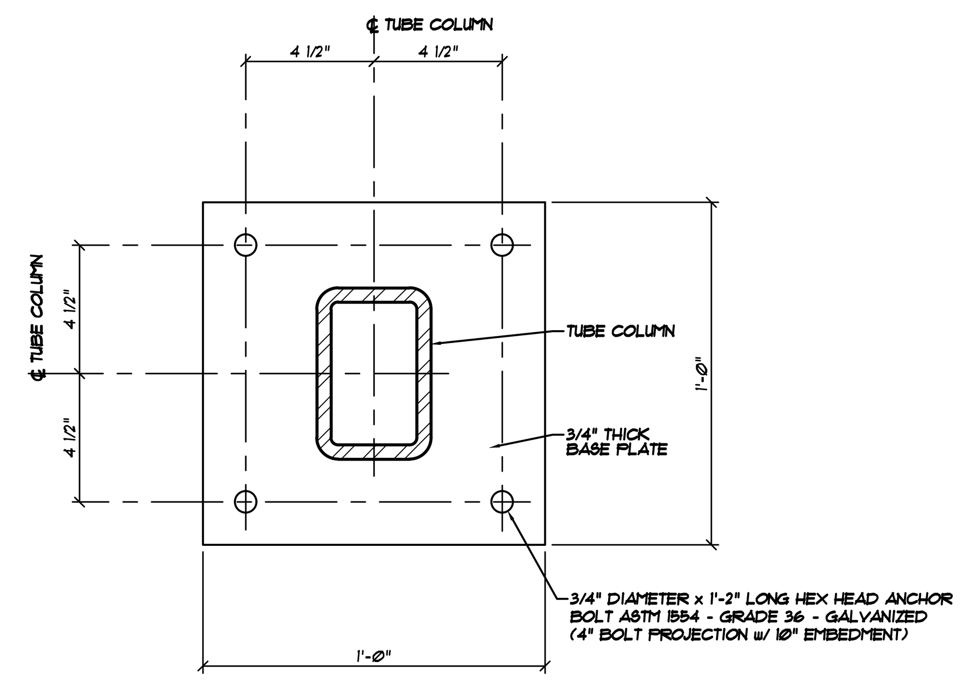
6/6/2024 4:01:50 PM, RELEASE FOR CONSTRUCTION



FOUNDATION PLAN . . . BUILDING "A"

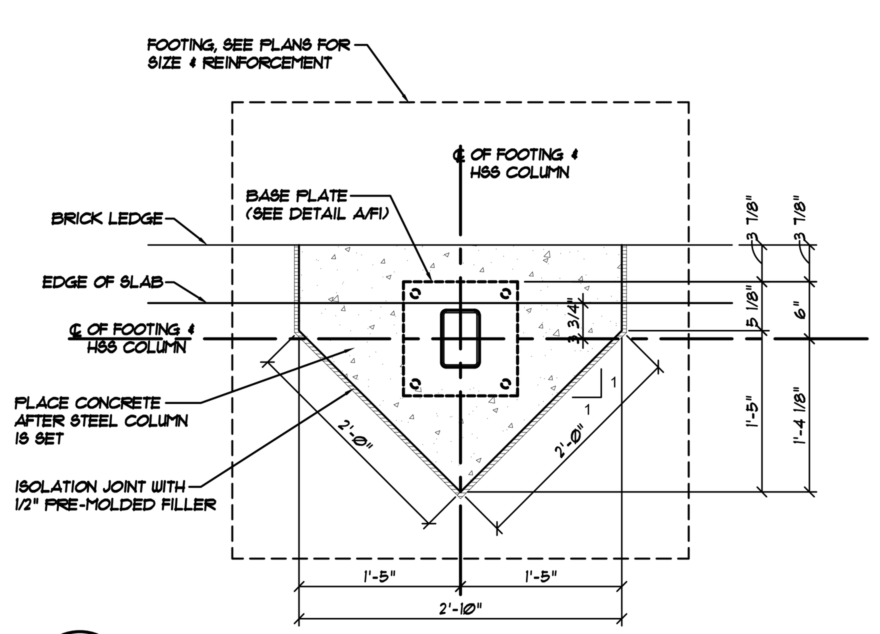
SCALE: 3/32" = 1'-0"

SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS . . . OFFSET CUTS 2'-6" MINIMUM FROM INTERIOR COLUMN LINES.



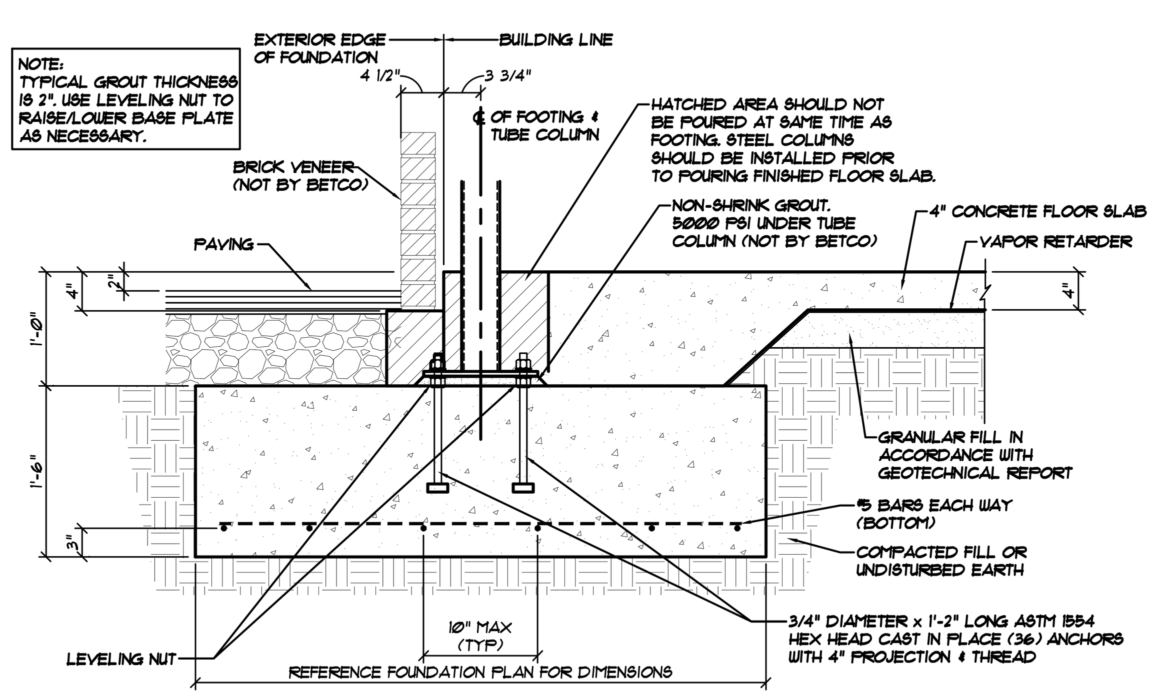
A/F1 TYPICAL TUBE COLUMN PLATE ANCHOR LAYOUT

NOT TO SCALE



B/F1 PERIMETER FOUNDATION AT BRICK VENEER

NOT TO SCALE



C/F1 PERIMETER FOUNDATION AT BRICK VENEER

NOT TO SCALE

ACI 318 — TABLE 19.3.1.1 EXPOSURE CATEGORIES AND CLASSES

CATEGORY	SEVERITY	CLASS	CONDITION	
F FREEZING AND THAWING	NOT APPLICABLE	F0	CONCRETE NOT EXPOSED TO FREEZING-AND-THAWING CYCLES	
S SULFATE			WATER-SOLUBLE SULFATE (SO_4) IN SOIL, PERCENT BY WEIGHT	DISSOLVED SULFATE (SO_4) IN WATER, ppm
	NOT APPLICABLE	S0	$SO_4 < 0.10$	$SO_4 < 150$
W REQUIRING LOW PERMEABILITY	NOT APPLICABLE	W0	CONCRETE DRY IN SERVICE, CONCRETE IN CONTACT WITH WATER AND LOW PERMEABILITY IS NOT REQUIRED	
C CORROSION PROTECTION OF REINFORCEMENT	MODERATE	C1	CONCRETE EXPOSED TO MOISTURE BUT NOT TO EXTERNAL SOURCES OF CHLORIDES	

NOTE: ABOVE REPRESENTS "ASSUMED" CONDITIONS BY ENGINEER. IF CONTRACTOR KNOWS OR HAS REASON TO BELIEVE OTHERWISE, ENGINEER SHALL BE NOTIFIED IN WRITING PRIOR TO CONSTRUCTION.

REFERENCE ACI 318-14 — TABLE 19.3.1.1 FOR REQUIREMENTS FOR CONCRETE BY EXPOSURE CLASS.

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE: KB-TZ2 ANCHORS ARE PROVIDED BY BETCO. EMBEDDED ANCHOR BOLTS IN SLAB ARE NOT REQUIRED BY BUYER.

NOTE: FIELD LOCATE KB-TZ2 ANCHORS AT 3 HOUR FIRE BARRIER.

NOTE TO OWNER / CONTRACTOR:
DO NOT CUT SAW JOINTS ALONG COLUMN LINES. DOING SO WILL REDUCE THE STRUCTURAL CAPACITY OF THE BUILDING ANCHORAGE TO THE CONCRETE AND MAY RESULT IN ADDITIONAL MATERIAL AND LABOR CHARGES. SAW CUTS MUST BE OFFSET 2'-6" MINIMUM FROM COLUMN LINES.

* MACRO SYNTHETIC FIBERS "COURSE FIBERS" (PER ASTM SUBCOMMITTEE C09.42), (PROPEX FIBERMESH 650 OR EQUIVALENT), MADE FROM VIRGIN POLYOLEFIN, HAVING AN EQUIVALENT DIAMETER BETWEEN 0.4 MM (0.016 IN) AND 1.25 MM (0.05 IN), HAVING A MINIMUM ASPECT RATIO (LENGTH/EQUIVALENT DIAMETER) OF 50, AT A MINIMUM ADDITION RATE OF 3 LB/CUBIC YARD (1.8 KG/CUBIC METER) MAY BE USED AS MINIMUM TEMPERATURE AND SHRINKAGE REINFORCEMENT, IN LIEU OF WELDED WIRE FABRIC, FOR THE CONSTRUCTION OF THE FOUNDATION ON THE ABOVE REFERENCED PROJECT.

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Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

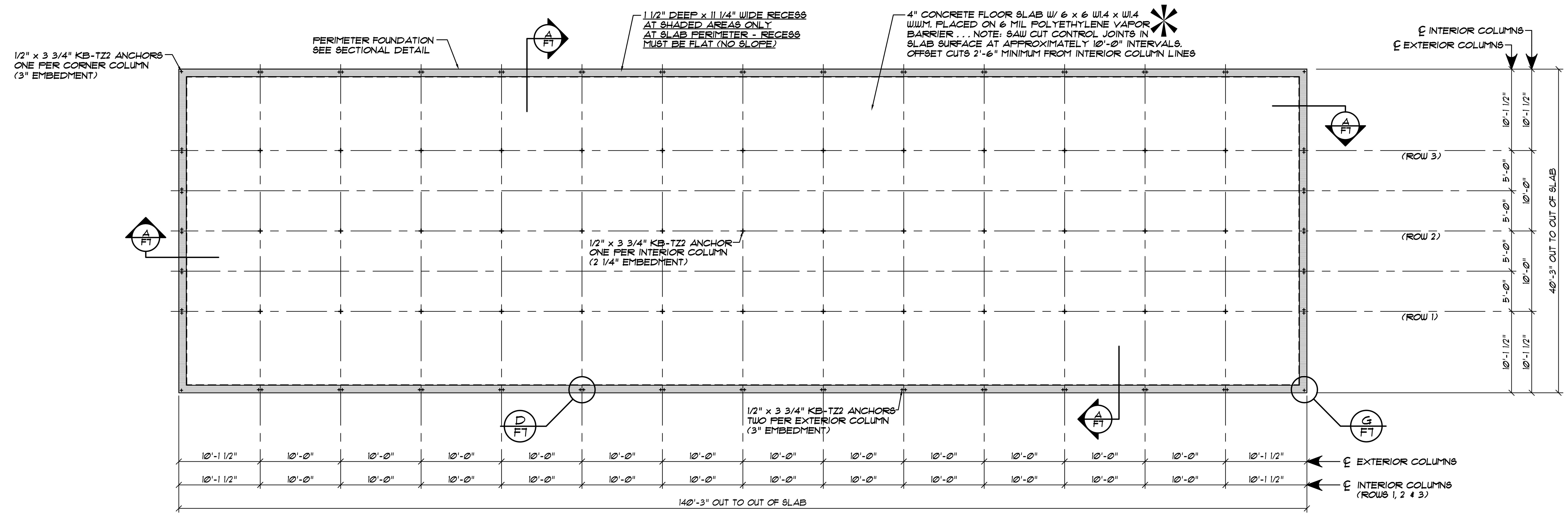
REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FOUNDATION PLAN, DETAILS & NOTES — BUILDING "A"
DRAWING NUMBER: F1

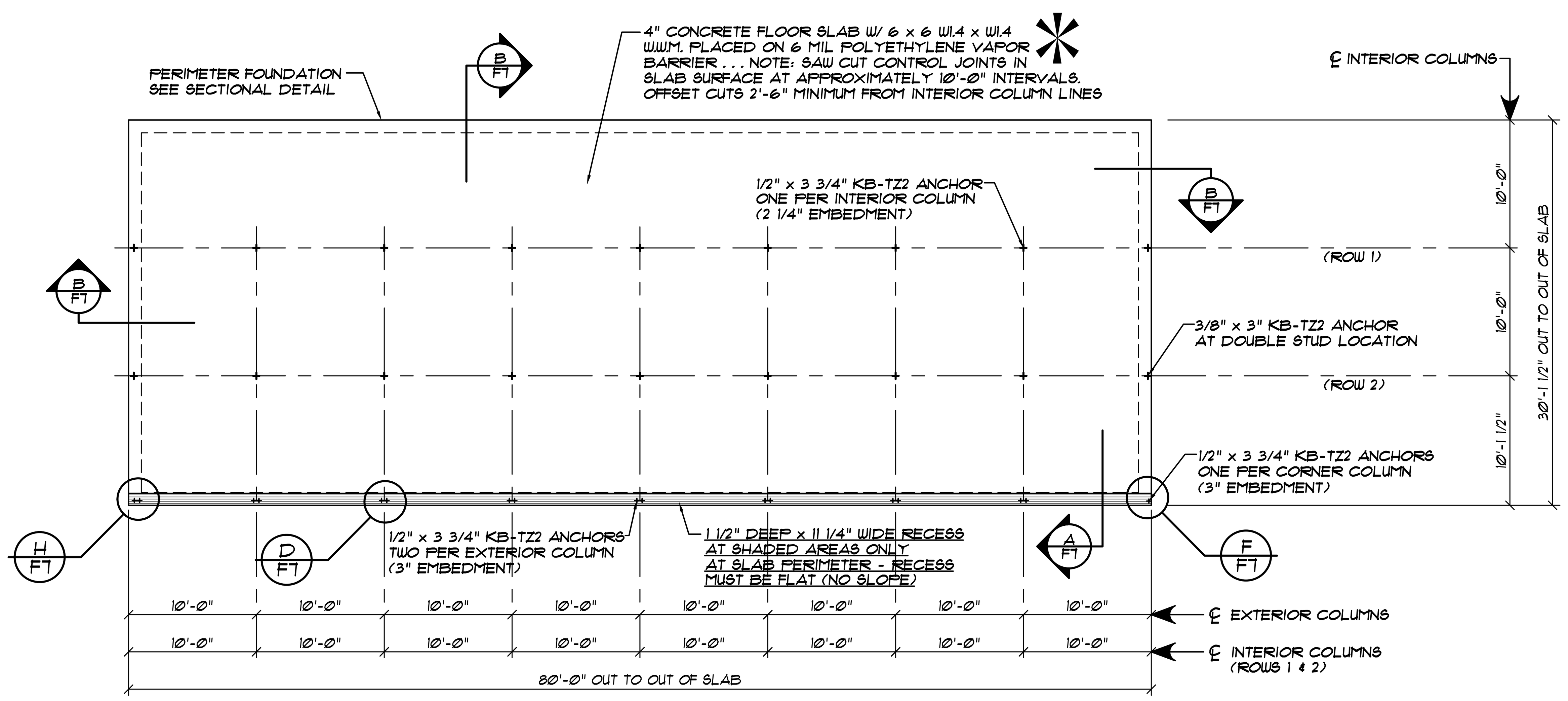
6/10/2024 11:02:33 AM, RELEASE FOR CONSTRUCTION



FOUNDATION PLAN . . . BUILDING "E"

SCALE: 1/8" = 1'-0"

SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS . . . OFFSET CUTS 2'-6" MINIMUM FROM INTERIOR COLUMN LINES.



FOUNDATION PLAN . . . BUILDING "B"

SCALE: 1/8" = 1'-0"

SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS . . . OFFSET CUTS 2'-6" MINIMUM FROM INTERIOR COLUMN LINES.

* MACRO SYNTHETIC FIBERS "COURSE FIBERS" (PER ASTM SUBCOMMITTEE C09.42), (PROPEX FIBERMESH 650 OR EQUIVALENT), MADE FROM VIRGIN POLYOLEFIN, HAVING AN EQUIVALENT DIAMETER BETWEEN 0.4 MM (0.016 IN) AND 1.25 MM (0.05 IN), HAVING A MINIMUM ASPECT RATIO (LENGTH/EQUIVALENT DIAMETER) OF 50, AT A MINIMUM ADDITION RATE OF 3 LB/CUBIC YARD (1.8 KG/CUBIC METER) MAY BE USED AS MINIMUM TEMPERATURE AND SHRINKAGE REINFORCEMENT, IN LIEU OF WELDED WIRE FABRIC, FOR THE CONSTRUCTION OF THE FOUNDATION ON THE ABOVE REFERENCED PROJECT.

NOTE:
KB-TZ2 ANCHORS ARE PROVIDED BY BETCO. EMBEDDED ANCHOR BOLTS IN SLAB ARE NOT REQUIRED BY BUYER.

NOTE TO OWNER / CONTRACTOR:
DO NOT CUT SAW JOINTS ALONG COLUMN LINES. DOING SO WILL REDUCE THE STRUCTURAL CAPACITY OF THE BUILDING ANCHORAGE TO THE CONCRETE AND MAY RESULT IN ADDITIONAL MATERIAL AND LABOR CHARGES. SAW CUTS MUST BE OFFSET 2'-6" MINIMUM FROM COLUMN LINES.

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Limited Engineering License # D-0140

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

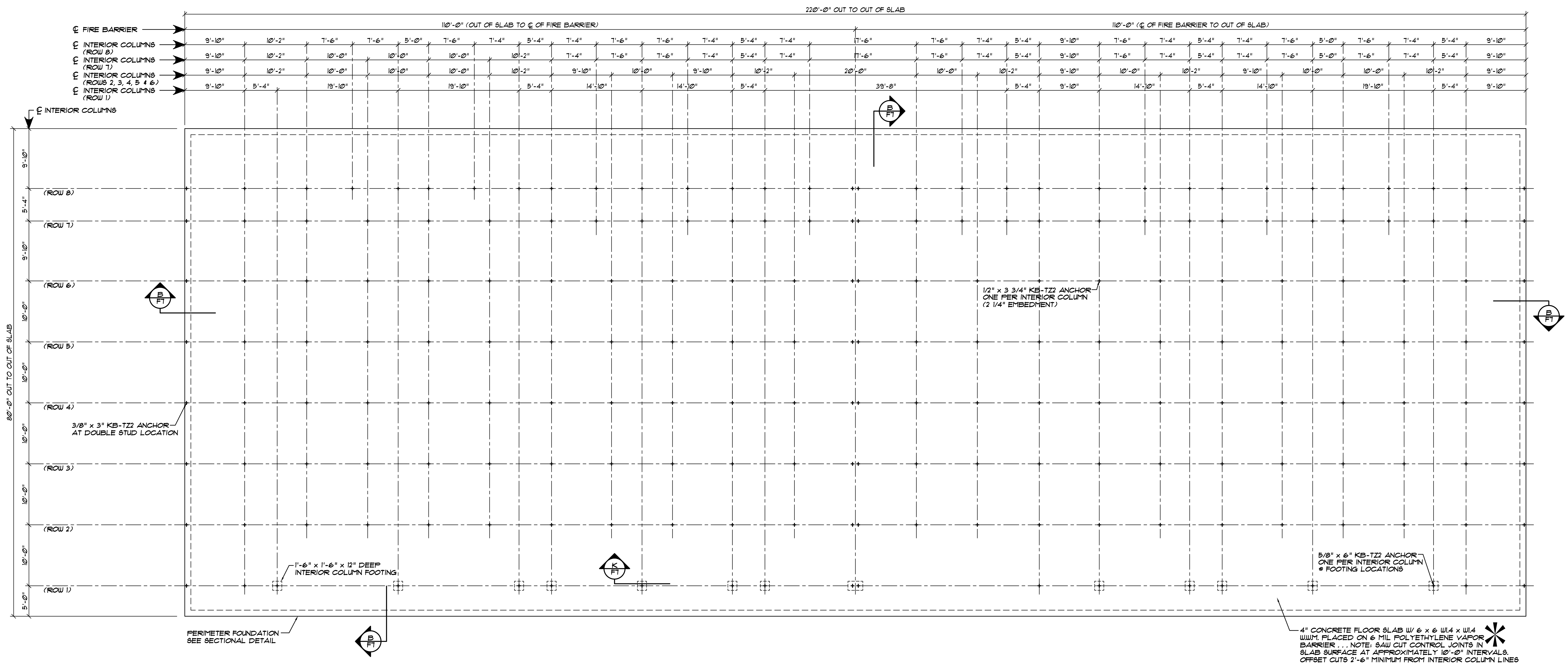
REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FOUNDATION PLANS & NOTES BUILDINGS "B" & "E"
DRAWING NUMBER: F2

6/6/2024 4:02:59 PM, RELEASE FOR CONSTRUCTION



FOUNDATION PLAN . . . BUILDING "D"

SCALE: 1/8" = 1'-0"

SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'–0" INTERVALS . . . OFFSET CUTS 2'–6" MINIMUM FROM INTERIOR COLUMN LINES.

6/6/2024 4:03:22 PM, RELEASE FOR CONSTRUCTION

NOTE:
KB-TZ2 ANCHORS ARE PROVIDED BY BETCO. EMBEDDED ANCHOR BOLTS IN SLAB ARE NOT REQUIRED BY BUYER.

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE TO OWNER / CONTRACTOR:
DO NOT CUT SAW JOINTS ALONG COLUMN LINES. DOING SO WILL REDUCE THE STRUCTURAL CAPACITY OF THE BUILDING ANCHORAGE TO THE CONCRETE AND MAY RESULT IN ADDITIONAL MATERIAL AND LABOR CHARGES. SAW CUTS MUST BE OFFSET 2'-6" MINIMUM FROM COLUMN LINES.

NOTE:
FIELD LOCATE KB-TZ2 ANCHORS AT 3 HOUR FIRE BARRIER.

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* MACRO SYNTHETIC FIBERS "COURSE FIBERS" (PER ASTM SUBCOMMITTEE C09.42), (PROPEX FIBERMESH 650 OR EQUIVALENT), MADE FROM VIRGIN POLYOLEFIN, HAVING AN EQUIVALENT DIAMETER BETWEEN 0.4 MM (0.016 IN) AND 1.25 MM (0.05 IN), HAVING A MINIMUM ASPECT RATIO (LENGTH/EQUIVALENT DIAMETER) OF 50, AT A MINIMUM ADDITION RATE OF 3 LB/CUBIC YARD (1.8 KG/CUBIC METER) MAY BE USED AS MINIMUM TEMPERATURE AND SHRINKAGE REINFORCEMENT, IN LIEU OF WELDED WIRE FABRIC, FOR THE CONSTRUCTION OF THE FOUNDATION ON THE ABOVE REFERENCED PROJECT.

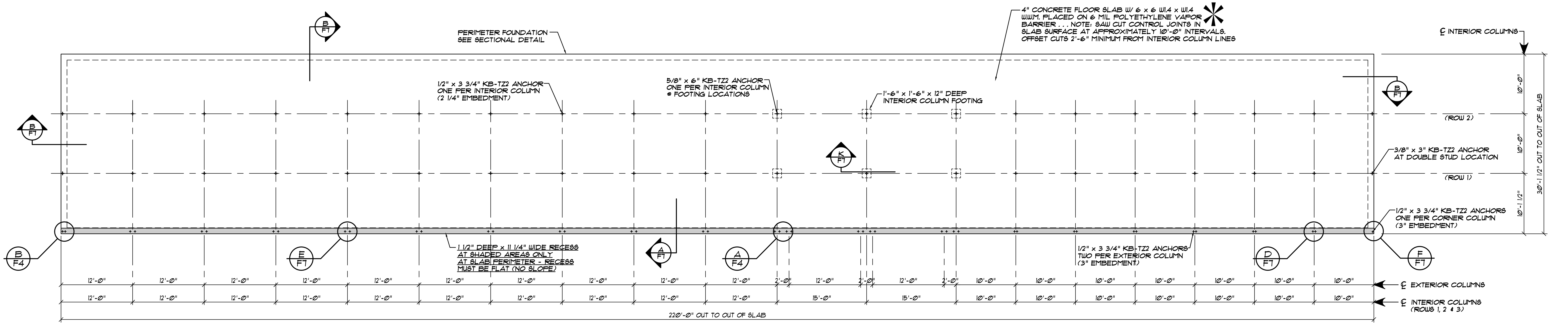
NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654–7813

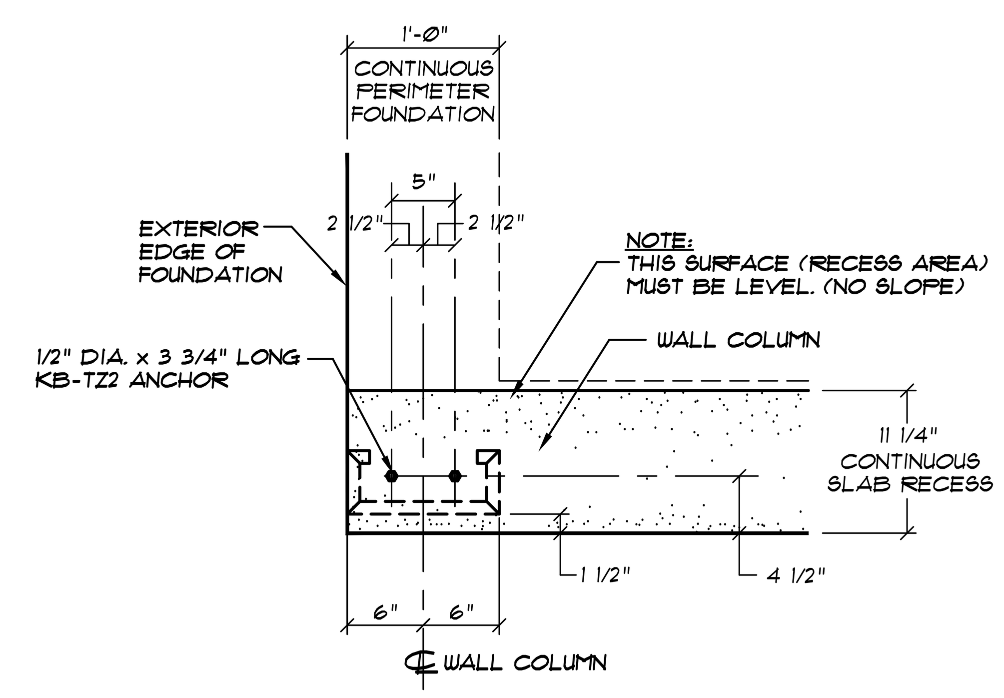
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FOUNDATION PLAN & NOTES BUILDING "D"
DRAWING NUMBER: F3



FOUNDATION PLAN . . . BUILDING "F"

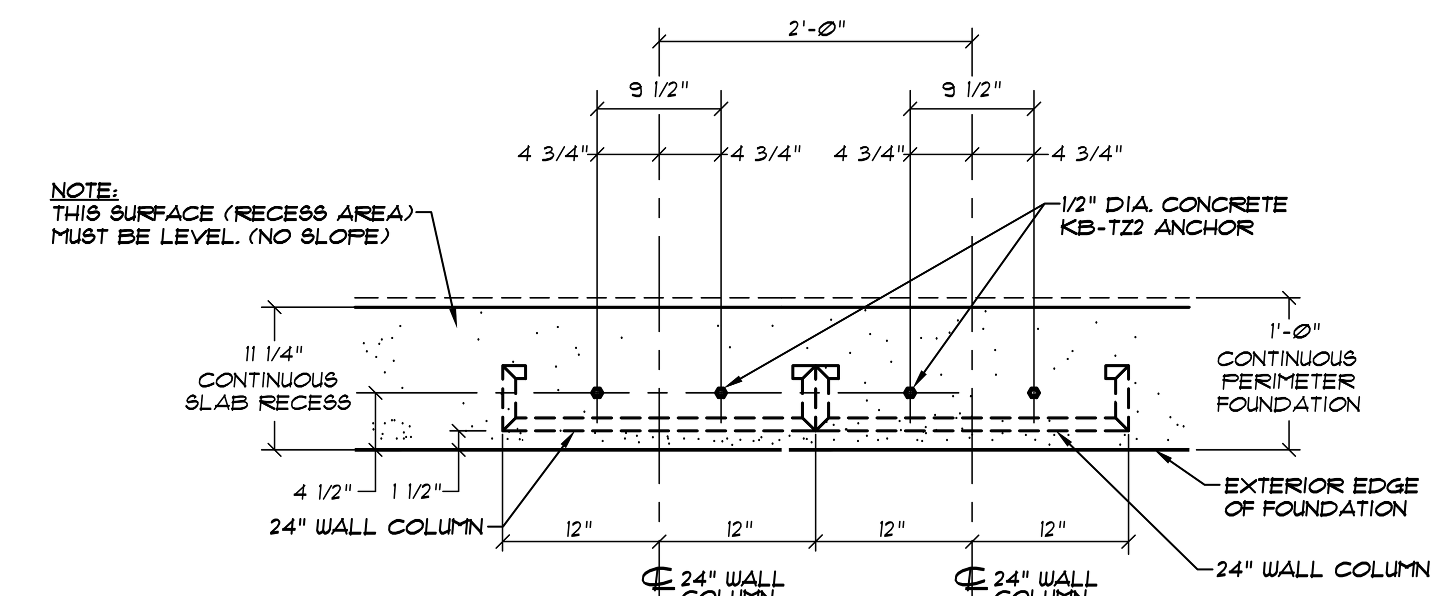
SCALE: 1/8" = 1'-0"

SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS . . . OFFSET CUTS 2'-6" MINIMUM FROM INTERIOR COLUMN LINES.



B / F4 WALL COLUMN ANCHORS AT CORNER

NOT TO SCALE



A / F4 DOUBLE WALL COLUMNS (24" & 24") WEDGE ANCHORS

NOT TO SCALE

NOTE:
KB-TZ2 ANCHORS ARE PROVIDED BY BETCO. EMBEDDED ANCHOR BOLTS IN SLAB ARE NOT REQUIRED BY BUYER.

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE TO OWNER / CONTRACTOR:

DO NOT CUT SAW JOINTS ALONG COLUMN LINES. DOING SO WILL REDUCE THE STRUCTURAL CAPACITY OF THE BUILDING ANCHORAGE TO THE CONCRETE AND MAY RESULT IN ADDITIONAL MATERIAL AND LABOR CHARGES. SAW CUTS MUST BE OFFSET 2'-6" MINIMUM FROM COLUMN LINES.

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NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

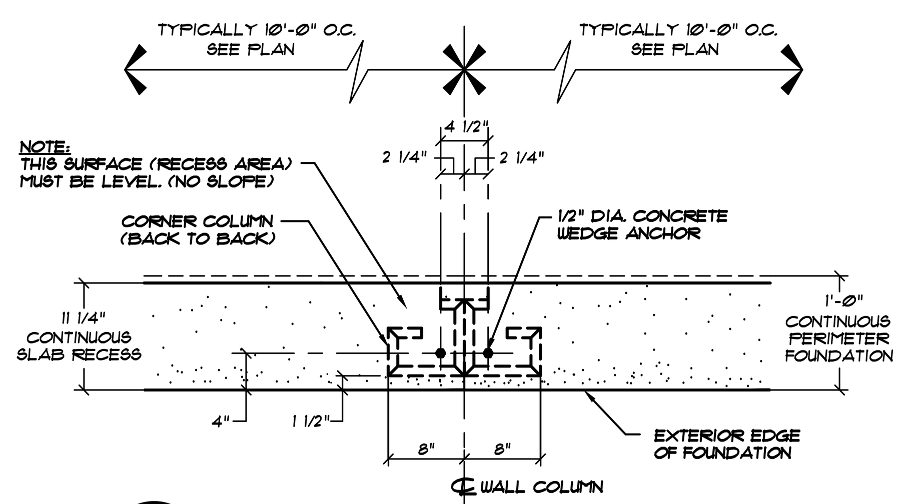
REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

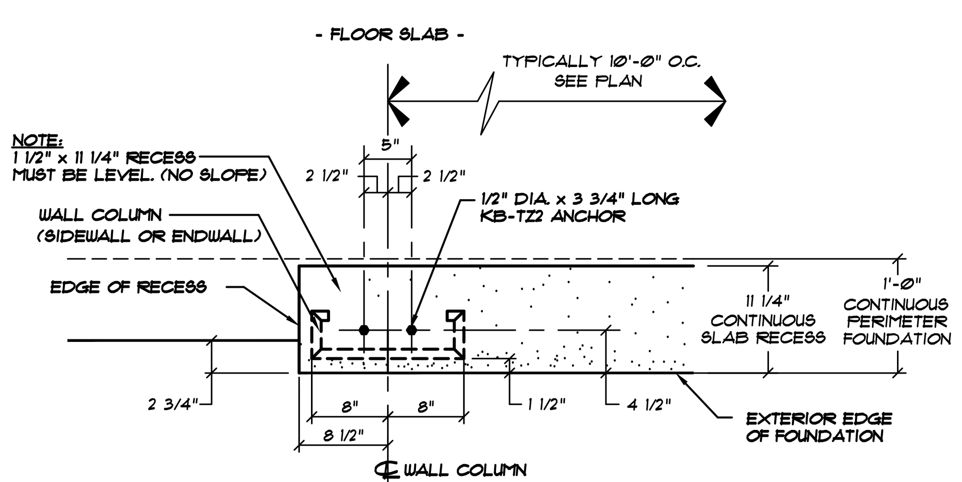
BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FOUNDATION PLAN, DETAILS & NOTES – BUILDING "F"
DRAWING NUMBER: F4

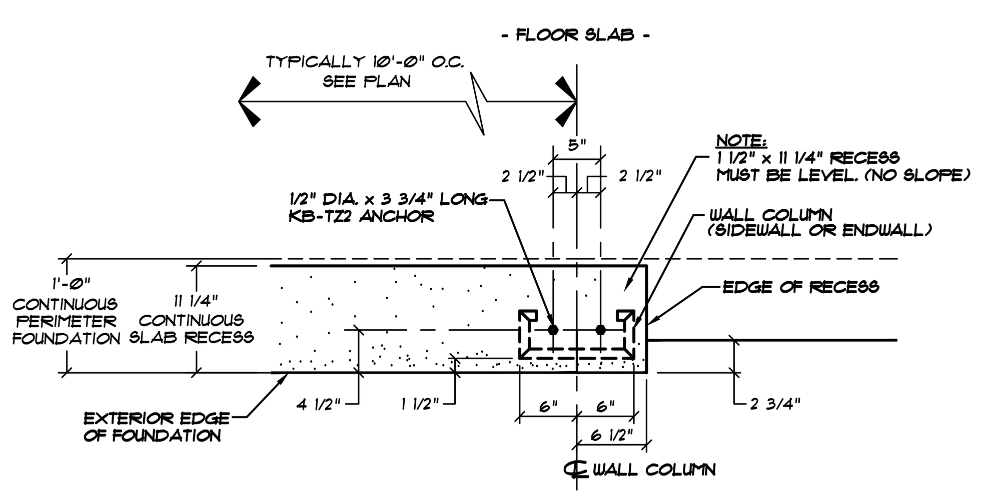
6/6/2024 4:03:47 PM, RELEASE FOR CONSTRUCTION



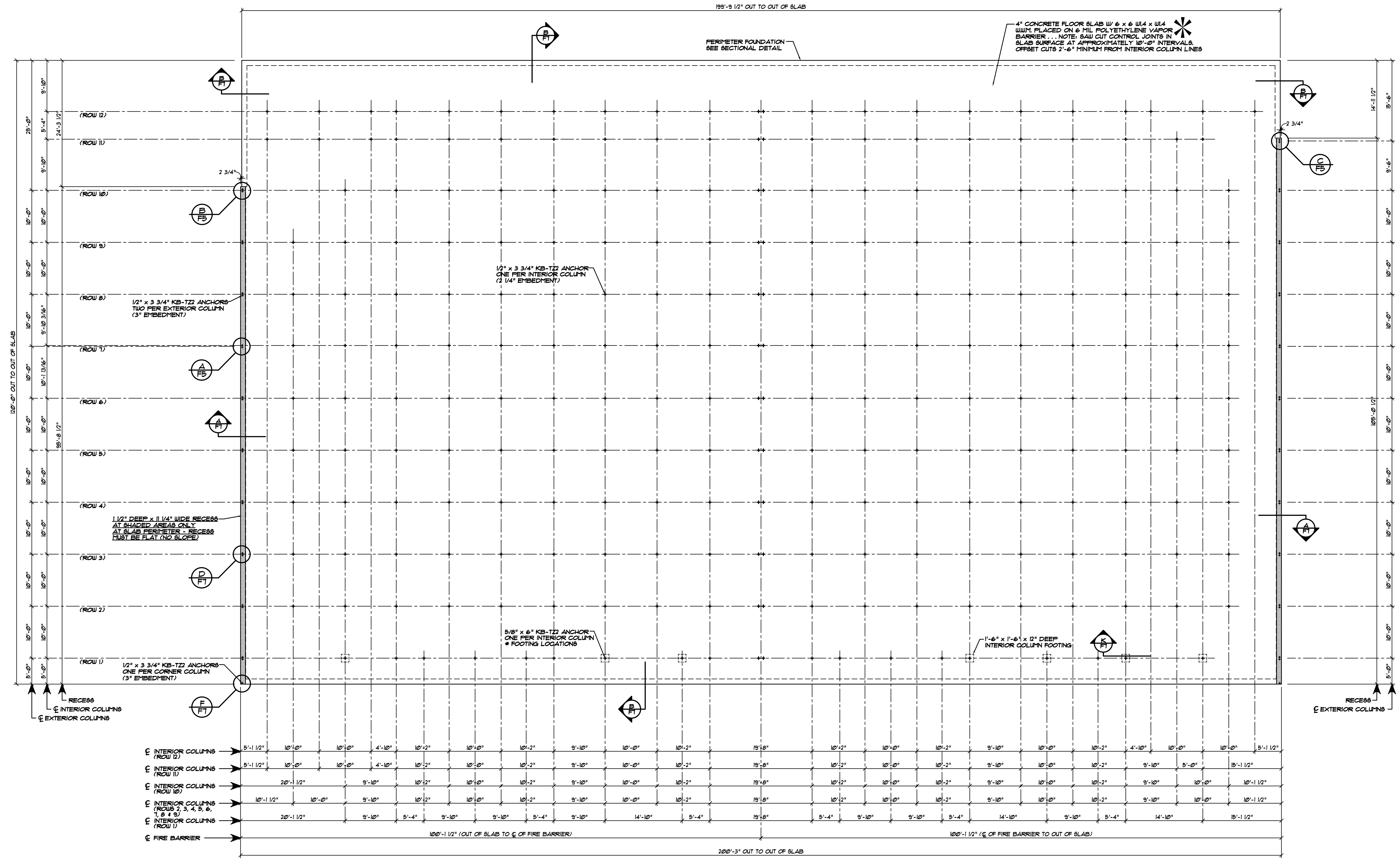
A F5 CORNER COLUMN WEDGE ANCHORS
NOT TO SCALE



B F5 16" WALL COLUMN WEDGE ANCHORS
NOT TO SCALE



C F5 12" WALL COLUMN WEDGE ANCHORS
NOT TO SCALE



FOUNDATION PLAN . . . BUILDING "G"

SCALE: 3/32" = 1'-0"

SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'-0" INTERVALS . . . OFFSET CUTS 2'-6" MINIMUM FROM INTERIOR COLUMN LINES.

NOTE:
FIELD LOCATE KB-TZ2 ANCHORS AT 3 HOUR FIRE BARRIER.

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE TO OWNER / CONTRACTOR:
DO NOT CUT SAW JOINTS ALONG COLUMN LINES. DOING SO WILL REDUCE THE STRUCTURAL CAPACITY OF THE BUILDING ANCHORAGE TO THE CONCRETE AND MAY RESULT IN ADDITIONAL MATERIAL AND LABOR CHARGES. SAW CUTS MUST BE OFFSET 2'-6" MINIMUM FROM COLUMN LINES.

NOTE:
KB-TZ2 ANCHORS ARE PROVIDED BY BETCO. EMBEDDED ANCHOR BOLTS IN SLAB ARE NOT REQUIRED BY BUYER.

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* MACRO SYNTHETIC FIBERS "COURSE FIBERS" (PER ASTM SUBCOMMITTEE C09.42), (PROPEX FIBERMESH 650 OR EQUIVALENT), MADE FROM VIRGIN POLYOLEFIN, HAVING AN EQUIVALENT DIAMETER BETWEEN 0.4 MM (0.016 IN) AND 1.25 MM (0.05 IN), HAVING A MINIMUM ASPECT RATIO (LENGTH/EQUIVALENT DIAMETER) OF 50, AT A MINIMUM ADDITION RATE OF 3 LB/CUBIC YARD (1.8 KG/CUBIC METER) MAY BE USED AS MINIMUM TEMPERATURE AND SHRINKAGE REINFORCEMENT, IN LIEU OF WELDED WIRE FABRIC, FOR THE CONSTRUCTION OF THE FOUNDATION ON THE ABOVE REFERENCED PROJECT.

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

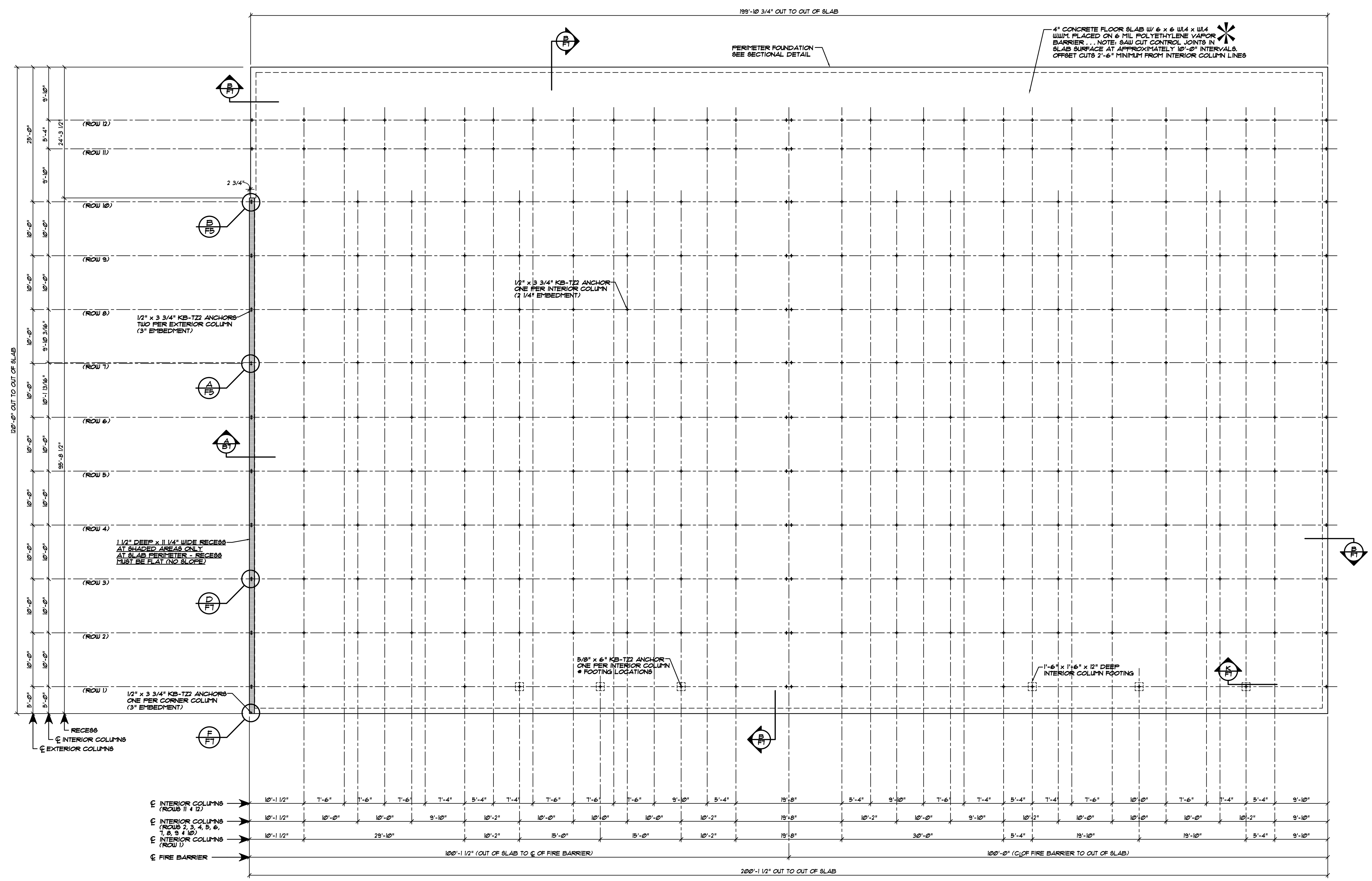
REVISIONS	DATE	BY

DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FOUNDATION PLAN, DETAILS & NOTES - BUILDING "G"
DRAWING NUMBER: F5

6/6/2024 4:04:21 PM, RELEASE FOR CONSTRUCTION



FOUNDATION PLAN . . . BUILDING "H"

SCALE: 3/32" = 1'-0"

SAW CUT CONTROL JOINTS IN SLAB SURFACE AT APPROXIMATELY 10'–0" INTERVALS . . . OFFSET CUTS 2'–6" MINIMUM FROM INTERIOR COLUMN LINES.

6/6/2024 4:04:45 PM, RELEASE FOR CONSTRUCTION

NOTE:
FIELD LOCATE KB-TZ2 ANCHORS AT 3 HOUR FIRE BARRIER.

NOTE: . . . SEE OWNER FOR BUILDING ORIENTATION ON SITE

NOTE TO OWNER / CONTRACTOR:
DO NOT CUT SAW JOINTS ALONG COLUMN LINES. DOING SO WILL REDUCE THE STRUCTURAL CAPACITY OF THE BUILDING ANCHORAGE TO THE CONCRETE AND MAY RESULT IN ADDITIONAL MATERIAL AND LABOR CHARGES. SAW CUTS MUST BE OFFSET 2'-6" MINIMUM FROM COLUMN LINES.

NOTE:
KB-TZ2 ANCHORS ARE PROVIDED BY BETCO. EMBEDDED ANCHOR BOLTS IN SLAB ARE NOT REQUIRED BY BUYER.

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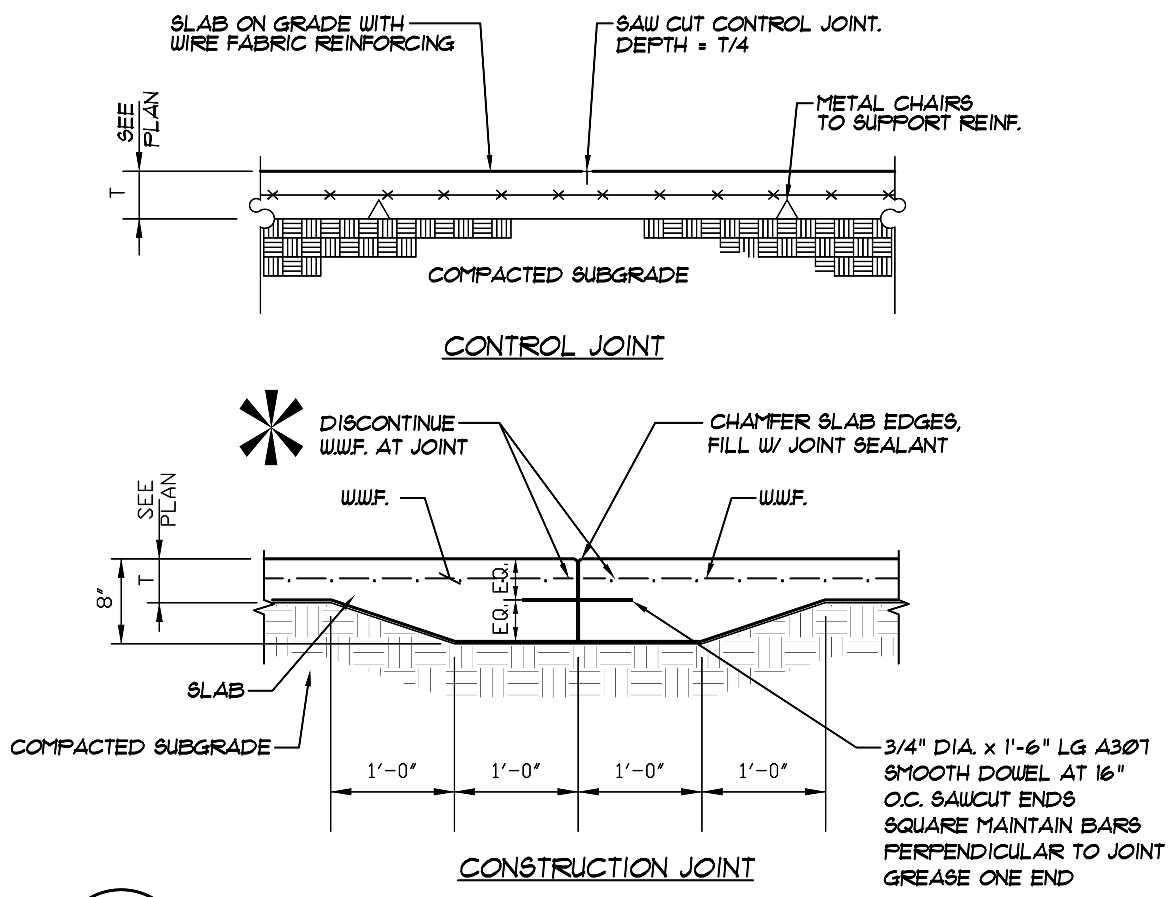
NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

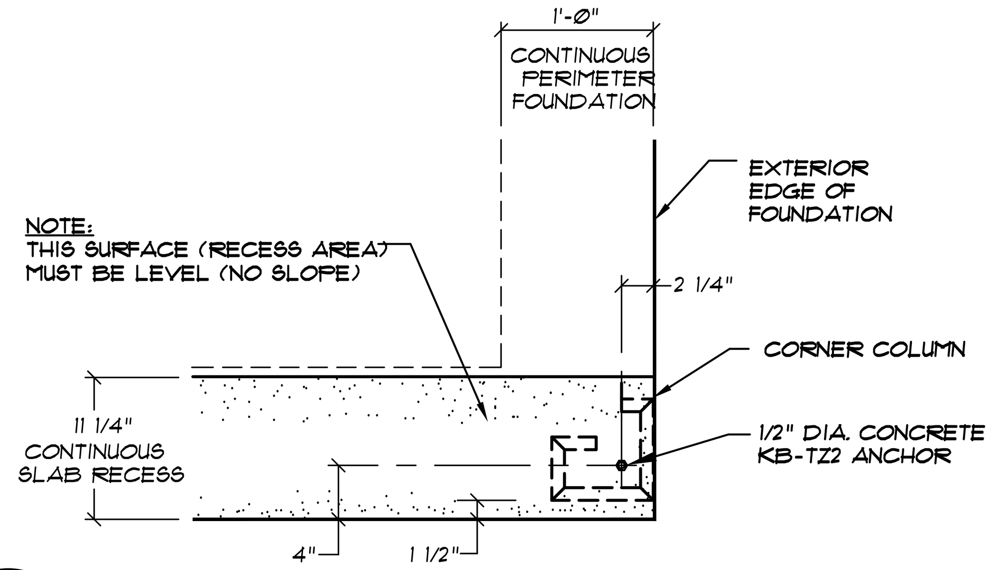
DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654–7813

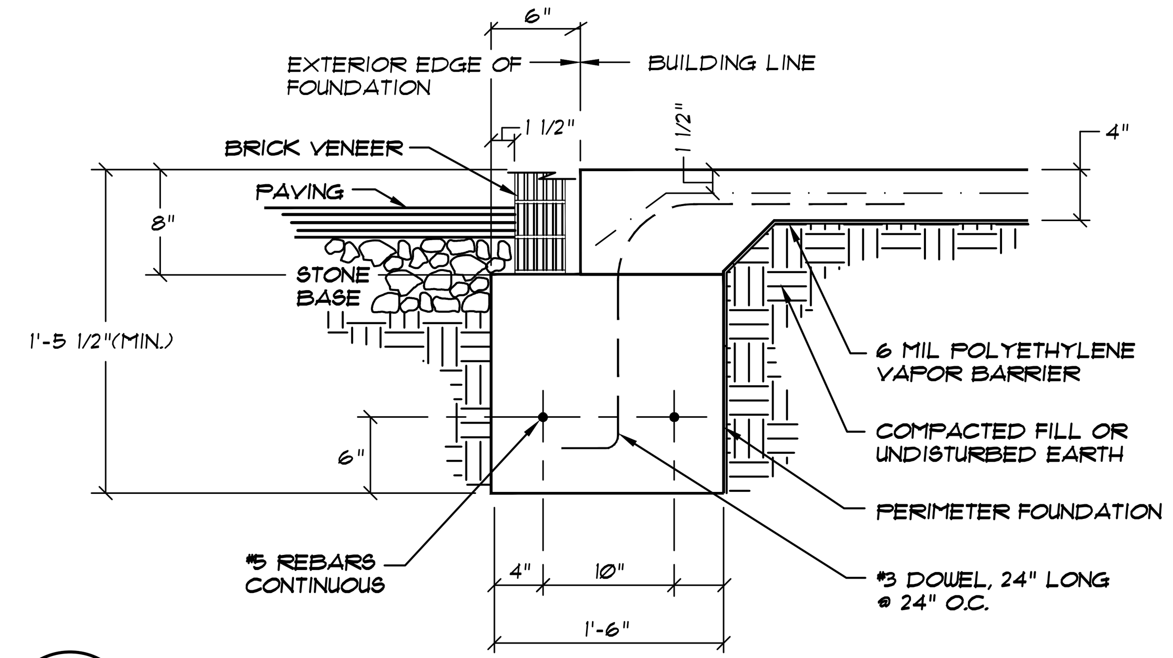
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FOUNDATION PLAN & NOTES BUILDING "H"
DRAWING NUMBER: F6



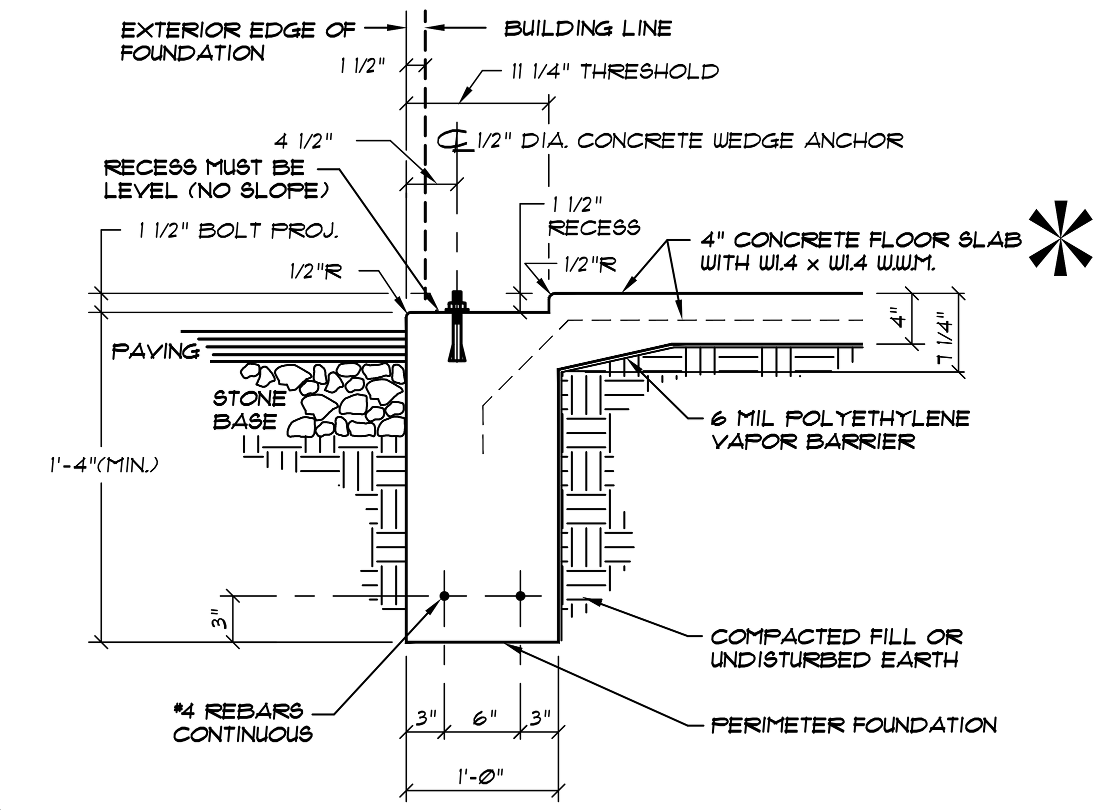
I / F7 — CONTROL JOINT & CONSTRUCTION JOINT IN CONCRETE SLAB
NOT TO SCALE



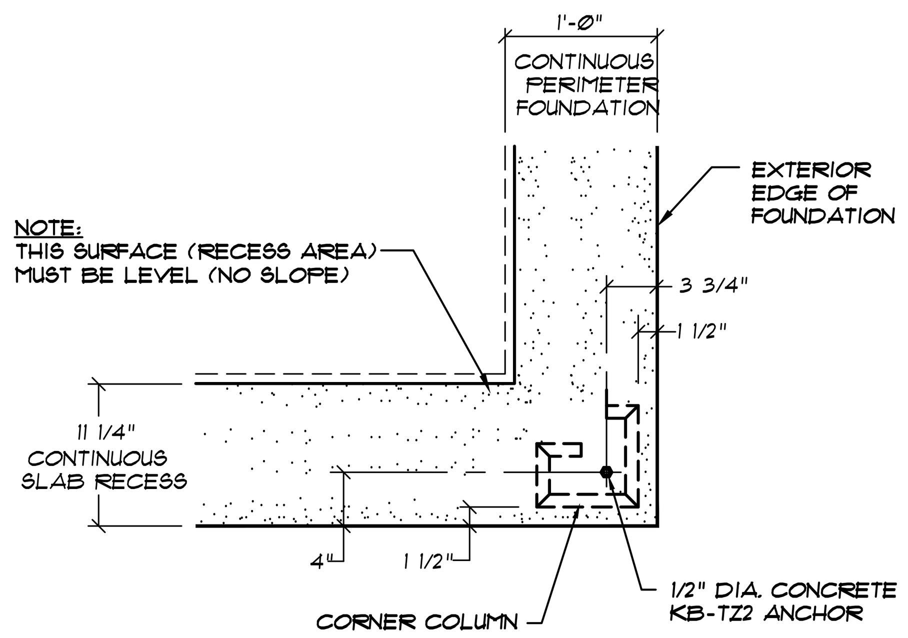
F / F7 — CORNER WEDGE ANCHORS AT STUDWALL
NOT TO SCALE



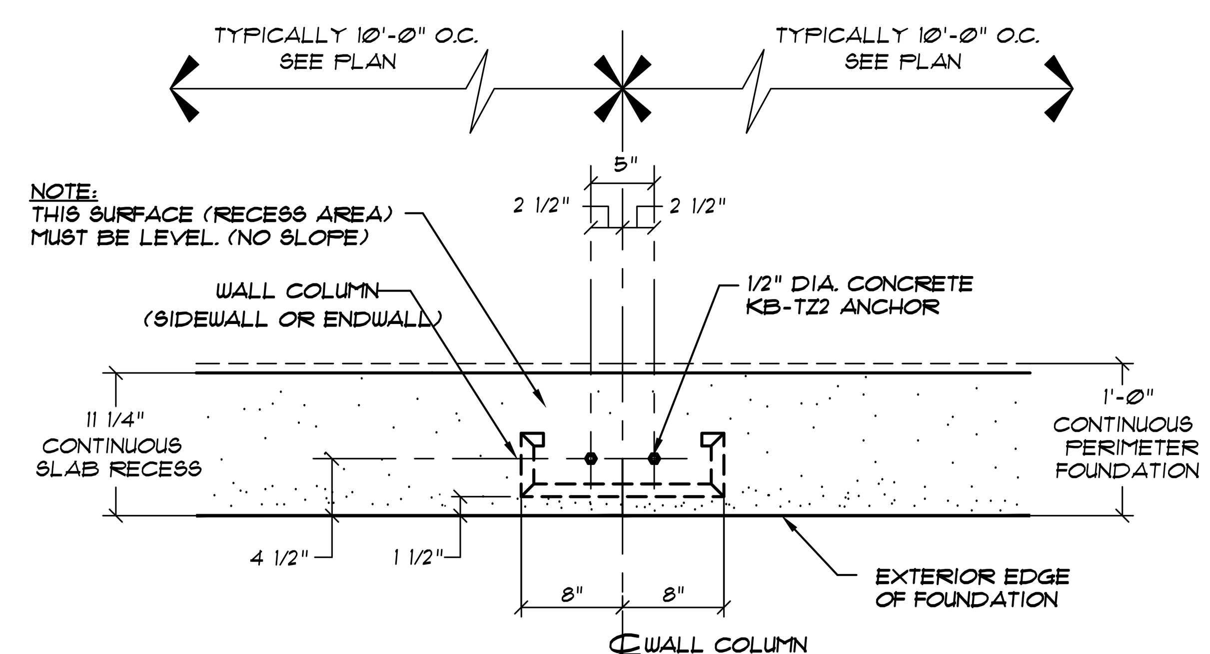
C / F7 — PERIMETER FOUNDATION AT BRICK VENEER
NOT TO SCALE



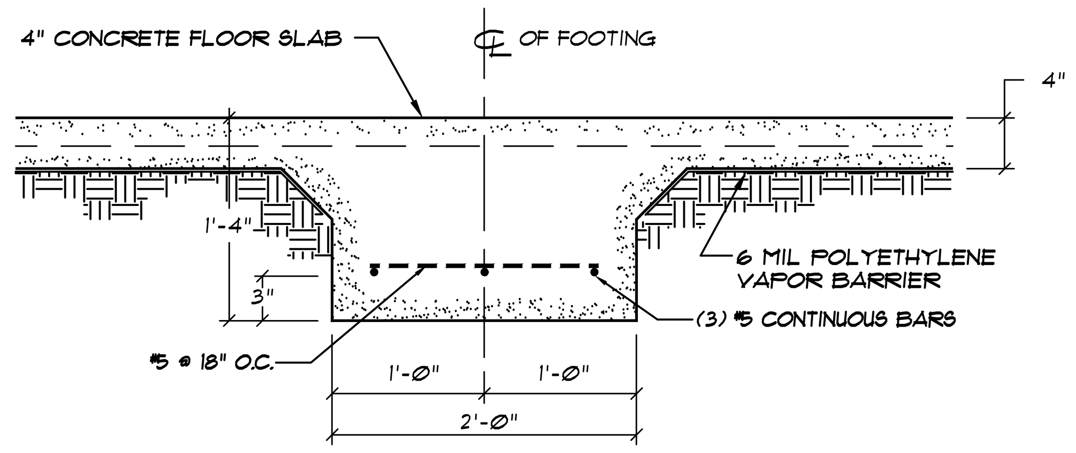
A / F7 — TYPICAL PERIMETER FOUNDATION SECTION
(MONOLITHIC CONCRETE PLACEMENT)
NOT TO SCALE



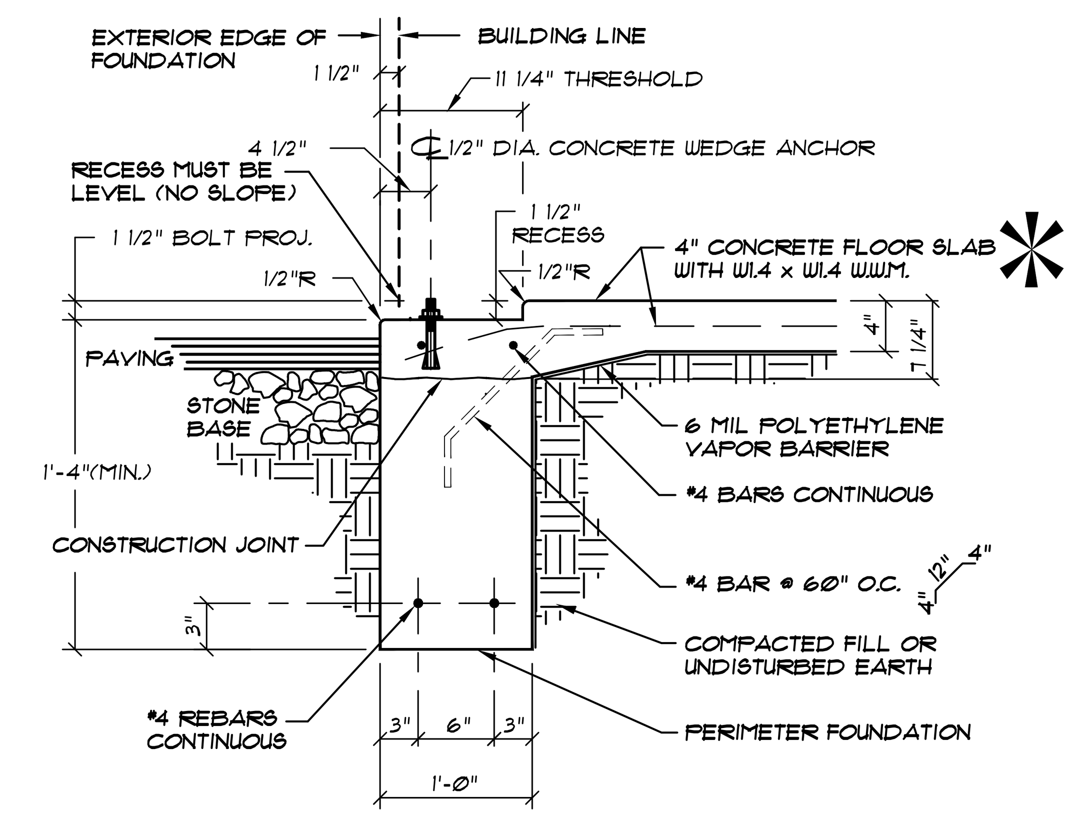
G / F7 — TYPICAL CORNER WEDGE ANCHORS
NOT TO SCALE



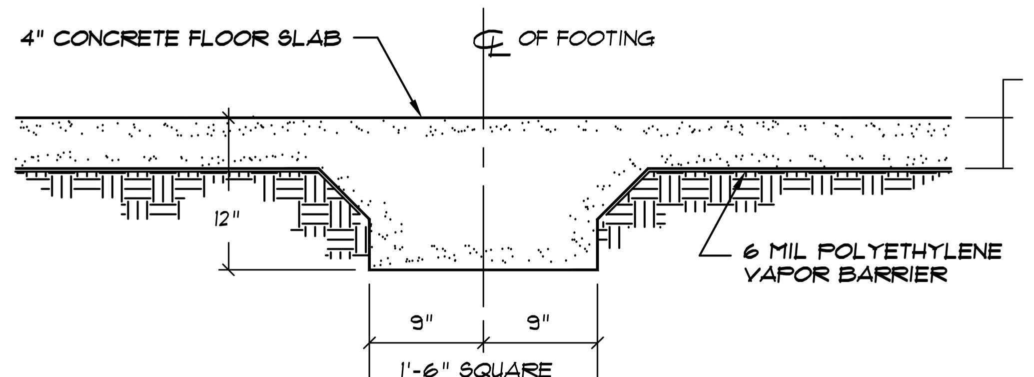
D / F7 — TYPICAL WALL COLUMN WEDGE ANCHORS
NOT TO SCALE



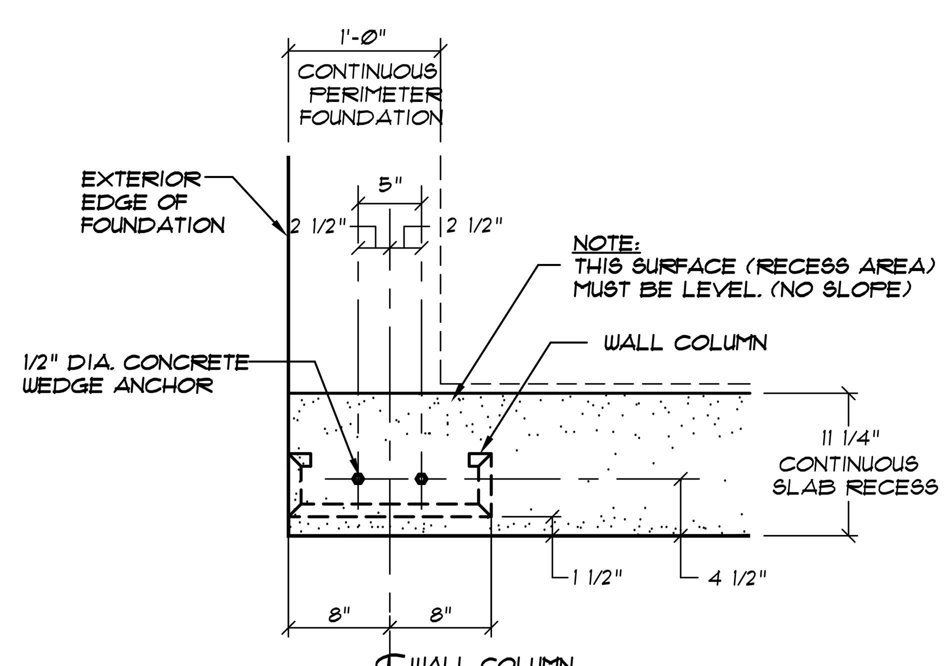
J / F7 — SECTION @ CONTINUOUS INTERIOR FOOTING
NOT TO SCALE



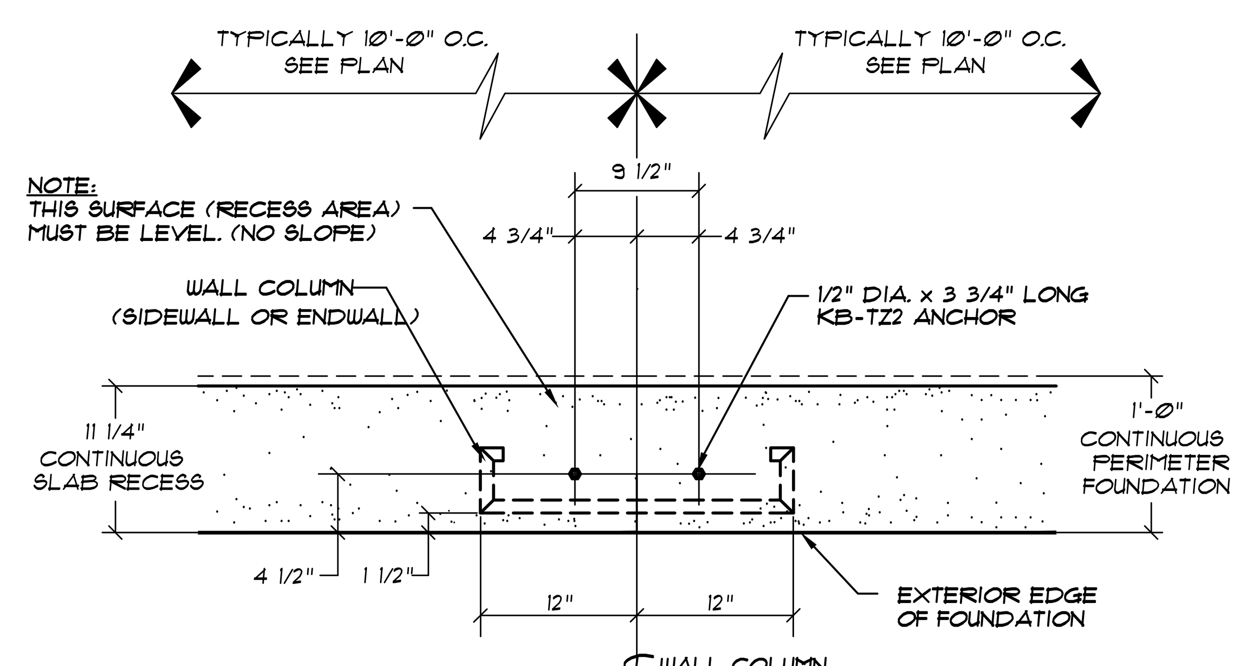
A / F7 — ALTERNATE PERIMETER FOUNDATION SECTION
(TWO STAGE CONCRETE PLACEMENT)
NOT TO SCALE



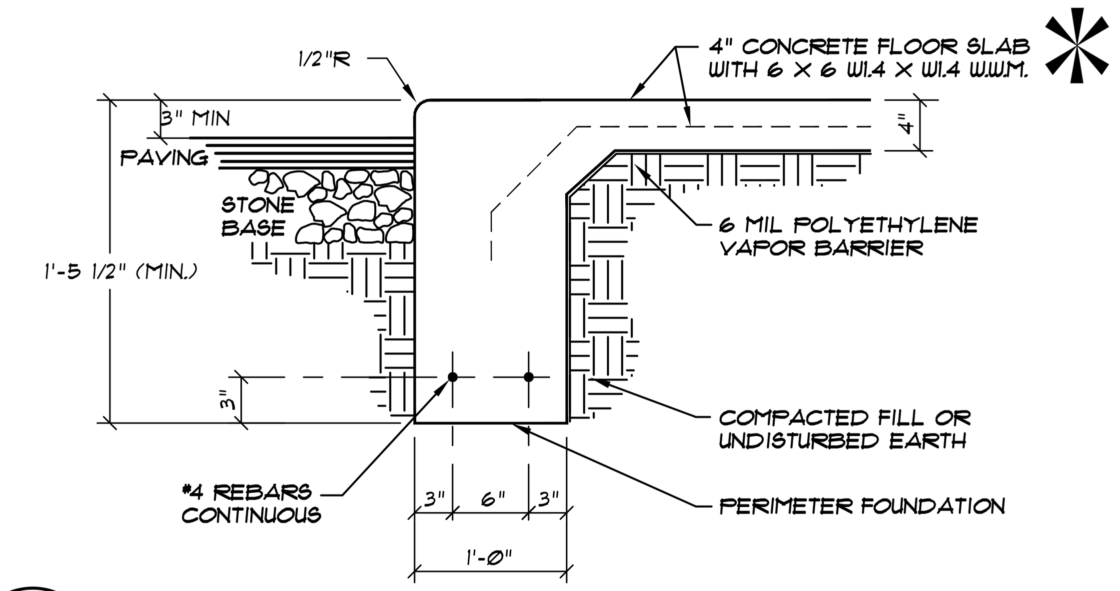
K / F7 — TYPICAL INTERIOR FOOTING SECTION
NOT TO SCALE



H / F7 — WALL COLUMN ANCHORS AT CORNER
NOT TO SCALE



E / F7 — TYPICAL WEDGE ANCHORS @ 24" WALL COLUMN
NOT TO SCALE



B / F7 — PERIMETER FOUNDATION SECTION AT EXTERIOR STUDWALL
(MONOLITHIC CONCRETE PLACEMENT)
NOT TO SCALE

*

MACRO SYNTHETIC FIBERS "COURSE FIBERS" (PER ASTM SUBCOMMITTEE C09.42), (PROPEX FIBERMESH 650 OR EQUIVALENT), MADE FROM VIRGIN POLYOLEFIN, HAVING AN EQUIVALENT DIAMETER BETWEEN 0.4 MM (0.016 IN) AND 1.25 MM (0.05 IN), HAVING A MINIMUM ASPECT RATIO (LENGTH/EQUIVALENT DIAMETER) OF 50, AT A MINIMUM ADDITION RATE OF 3 LB/CUBIC YARD (1.8 KG/CUBIC METER) MAY BE USED AS MINIMUM TEMPERATURE AND SHRINKAGE REINFORCEMENT, IN LIEU OF WELDED WIRE FABRIC, FOR THE CONSTRUCTION OF THE FOUNDATION ON THE ABOVE REFERENCED PROJECT.

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228 Commerce Blvd.
Statesville, NC 28625
Limited Engineering License # D-0140

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

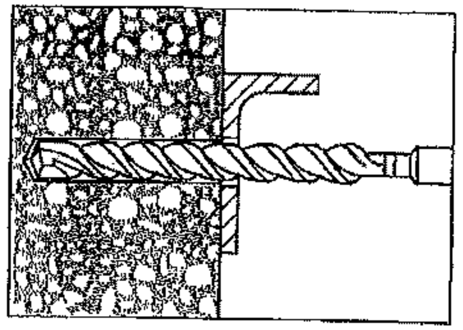
DATE: 1/19/24
DRAWN BY: J. HARE
SCALE: AS NOTED
APPROVED BY:

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800) 654-7813

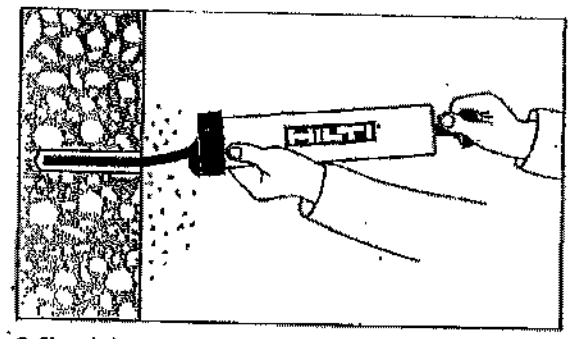
PROJECT NAME: AMPLE STORAGE
PROJECT ADDRESS: ERWIN, NORTH CAROLINA
OWNER: LAMPE MANAGEMENT COMPANY
PROJECT NO.: NC23237
SHEET TITLE: FOUNDATION DETAILS & NOTES
DRAWING NUMBER: F7

6/6/2024 4:05:21 PM, RELEASE FOR CONSTRUCTION

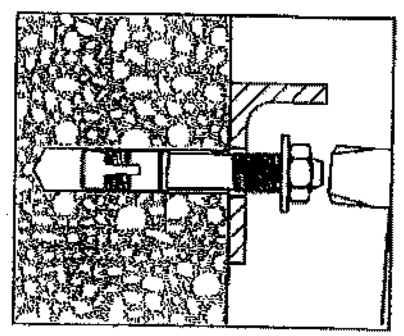
Kwik Bolt 3 Expansion Anchor Installation Instructions



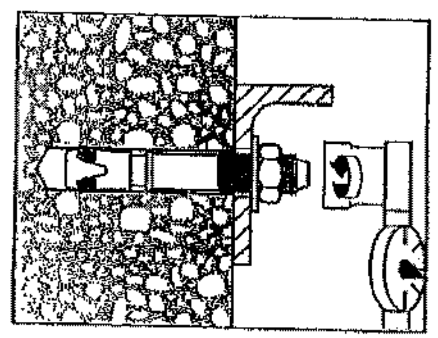
1. Hammer drill a hole to the same nominal diameter as the Kwik Bolt 3. The hole depth must exceed the anchor embedment by at least one diameter. The fixture may be used as a drilling template to ensure proper anchor location.



2. Clean hole.



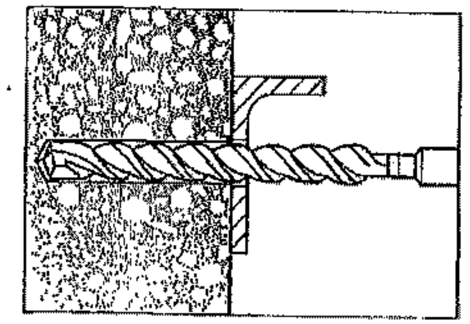
3. Drive the Kwik Bolt 3 into the hole using a hammer. The anchor must be driven until at least six threads are below the surface of the fixture.



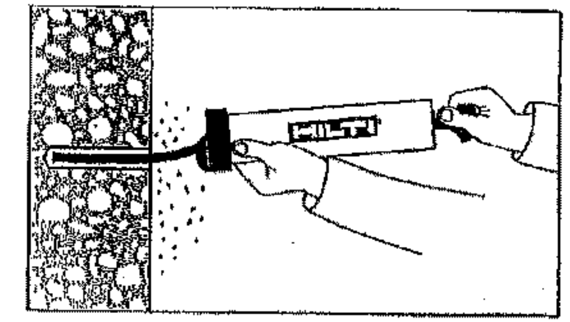
4. Tighten the nut to the recommended installation torque.

DESIGN INFORMATION	Units	Nominal Anchor Diameter				
		1/4	3/8	1/2	5/8	3/4
Installation torque	ft*lb (Nm)	4 (5)	20 (27)	40 (54)	60 (81)	110 (149)

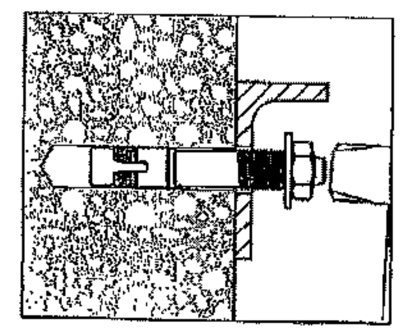
Kwik Bolt TZ Anchor Installation Instructions into normal-weight and lightweight concrete



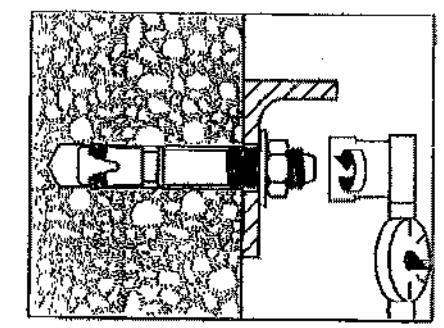
1. Hammer drill a hole to the same nominal diameter as the Kwik Bolt TZ. The hole depth must exceed the anchor embedment by at least 1/4 inch. The fixture may be used as a drilling template to ensure proper anchor location.



2. Clean hole.



3. Drive the Kwik Bolt TZ into the hole using a hammer. The anchor must be driven until at least 4 threads are below the surface of the fixture.



4. Tighten the nut to the recommended installation torque.

SETTING INFORMATION	Units	Nominal anchor diameter (in.)			
		3/8	1/2	5/8	3/4
Installation torque	ft-lb (Nm)	25 (34)	40 (54)	60 (81)	110 (149)

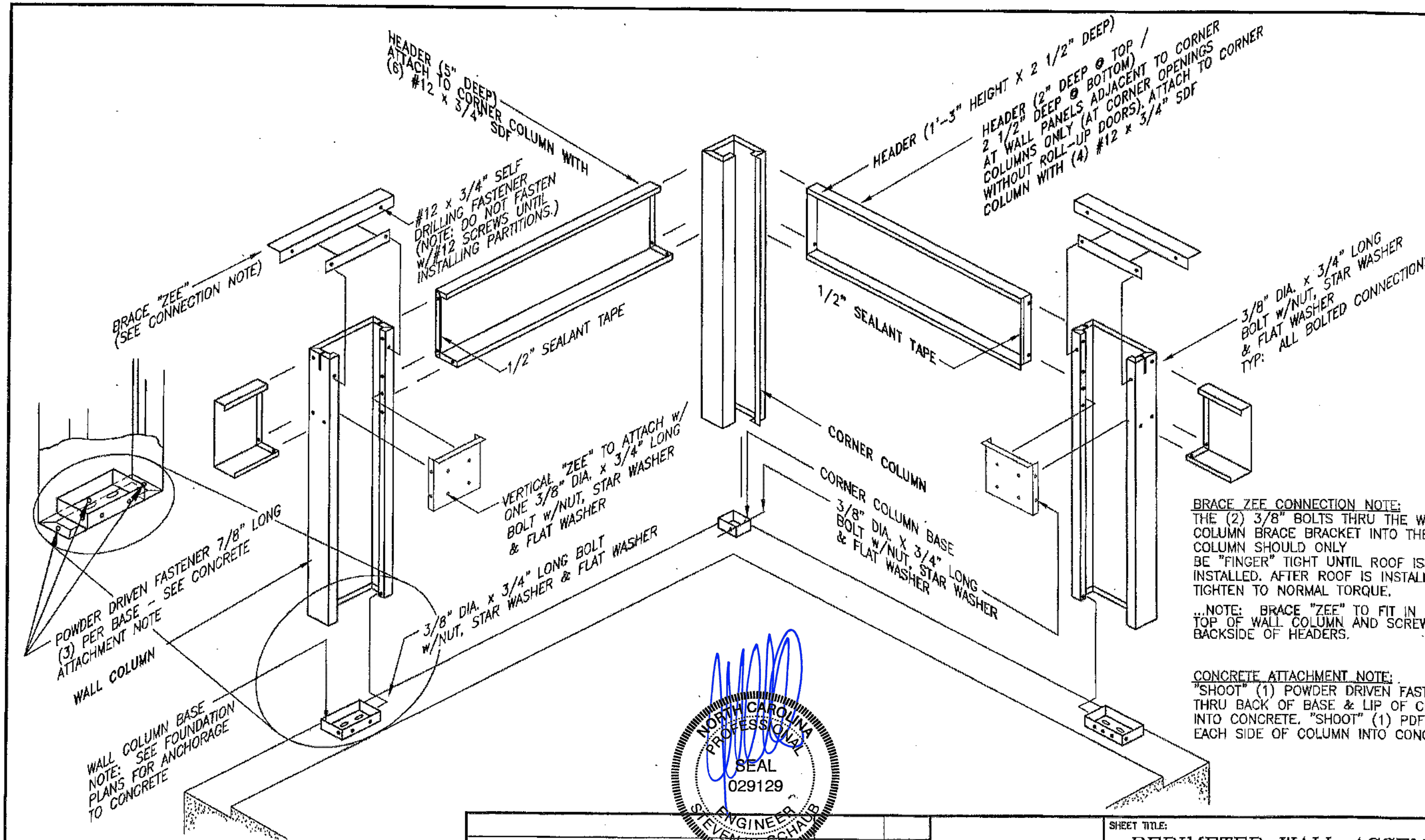
NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

REVISIONS	DATE	BY

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: Kwik Bolt Anchor Installation Instructions		
DRAWN BY: BDL	APPROVED BY:	DRAWING NUMBER: ERC016X
SCALE: NTS	DATE: 11/8/2011	



BRACE ZEE CONNECTION NOTE:
THE (2) 3/8" BOLTS THRU THE WALL COLUMN BRACE BRACKET INTO THE COLUMN SHOULD ONLY BE "FINGER" TIGHT UNTIL ROOF IS INSTALLED. AFTER ROOF IS INSTALLED TIGHTEN TO NORMAL TORQUE.

...NOTE: BRACE "ZEE" TO FIT IN SLOT AT TOP OF WALL COLUMN AND SCREW TO BACKSIDE OF HEADERS.

CONCRETE ATTACHMENT NOTE:
"SHOOT" (1) POWDER DRIVEN FASTENER THRU BACK OF BASE & LIP OF COLUMN INTO CONCRETE. "SHOOT" (1) PDF THRU EACH SIDE OF COLUMN INTO CONCRETE.

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

REVISIONS	DATE	BY

BETCO
228 COMMERCE BLVD.
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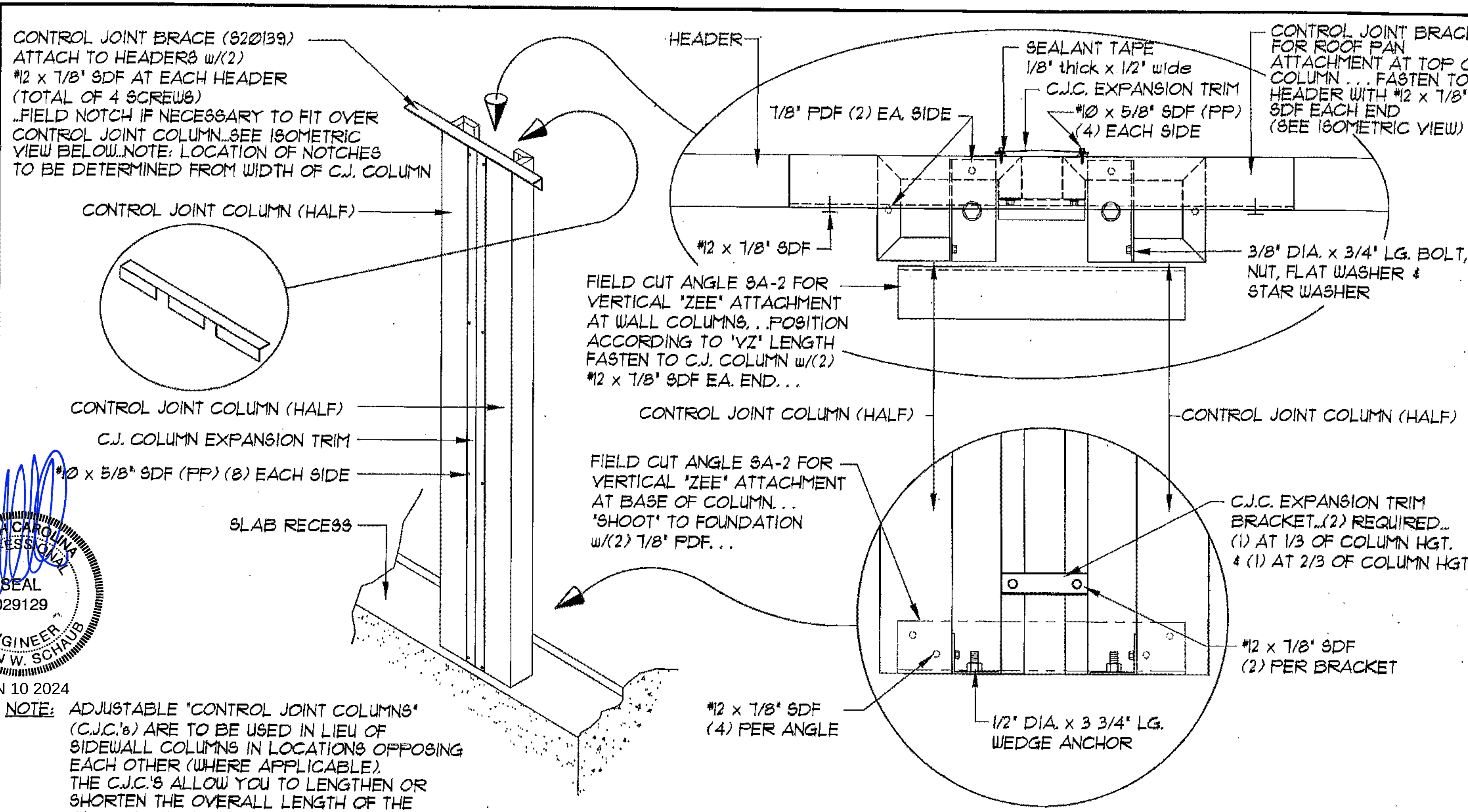
SHEET TITLE: *PERIMETER WALL ASSEMBLY*
All Eave Heights

DRAWN BY:	APPROVED BY:	DRAWING NUMBER:
J Pope		ERC100X
SCALE: NTS	DATE: 6/17/94	



NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

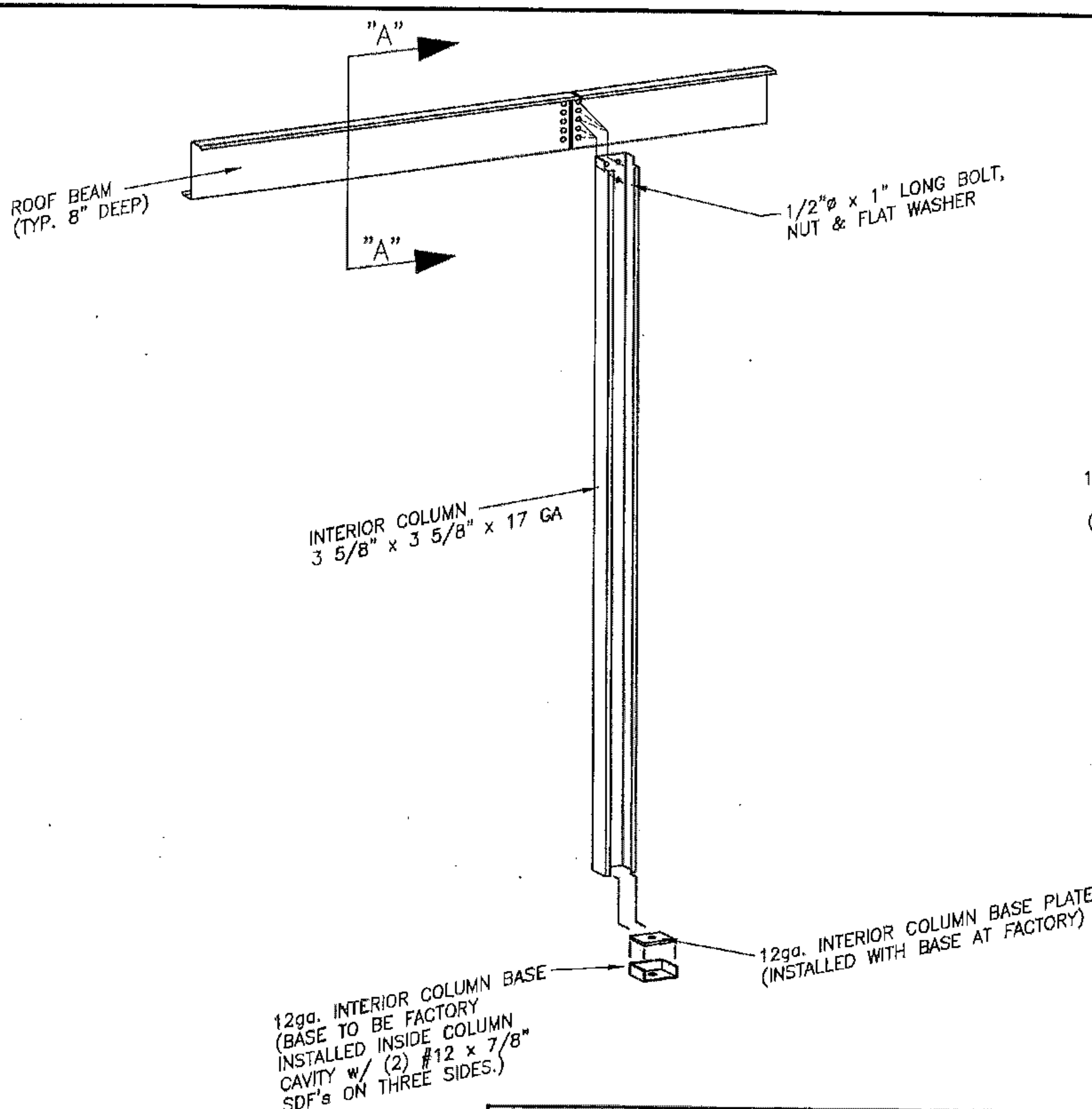
NOTE: ADJUSTABLE 'CONTROL JOINT COLUMNS' (C.J.C.'s) ARE TO BE USED IN LIEU OF SIDEWALL COLUMNS IN LOCATIONS OPPOSING EACH OTHER (WHERE APPLICABLE). THE C.J.C.'S ALLOW YOU TO LENGTHEN OR SHORTEN THE OVERALL LENGTH OF THE BLDG. BY UP TO 2". THIS GIVES YOU THE ABILITY TO MAKE ADJUSTMENTS FOR A SLAB THAT IS NOT EXACTLY THE DIMENSIONS SPECIFIED.
DO NOT INSTALL WEDGE ANCHORS IN C.J.C. LOCATIONS UNTIL COLUMNS ARE IN PLACE & ADJUSTED AS REQUIRED.

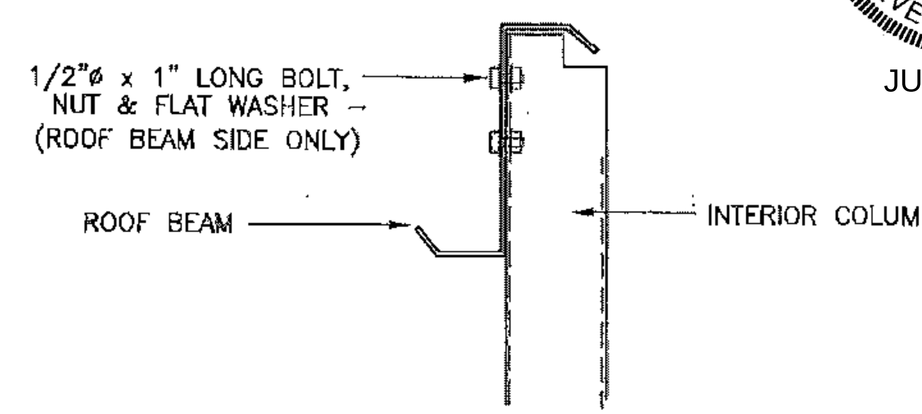
REVISIONS	DATE	BY
4 ADDED SDF'S TO CJC TRIM	11/15/05	JCM
3 CHANGED W/A LENGTH TO 3 3/4"	4/30/03	RSG
2 GENERAL REVISIONS	1/22/99	JAB
1 GENERAL REVISIONS	3-8-99	FOX

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: CONTROL JOINT COLUMN AND TRIM INSTALLATION

DRAWN BY: K.D.W.	APPROVED BY:	DRAWING NUMBER: ERC105X
SCALE: NTS	DATE: 8/1/94	





SECTION
"A" – "A"

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

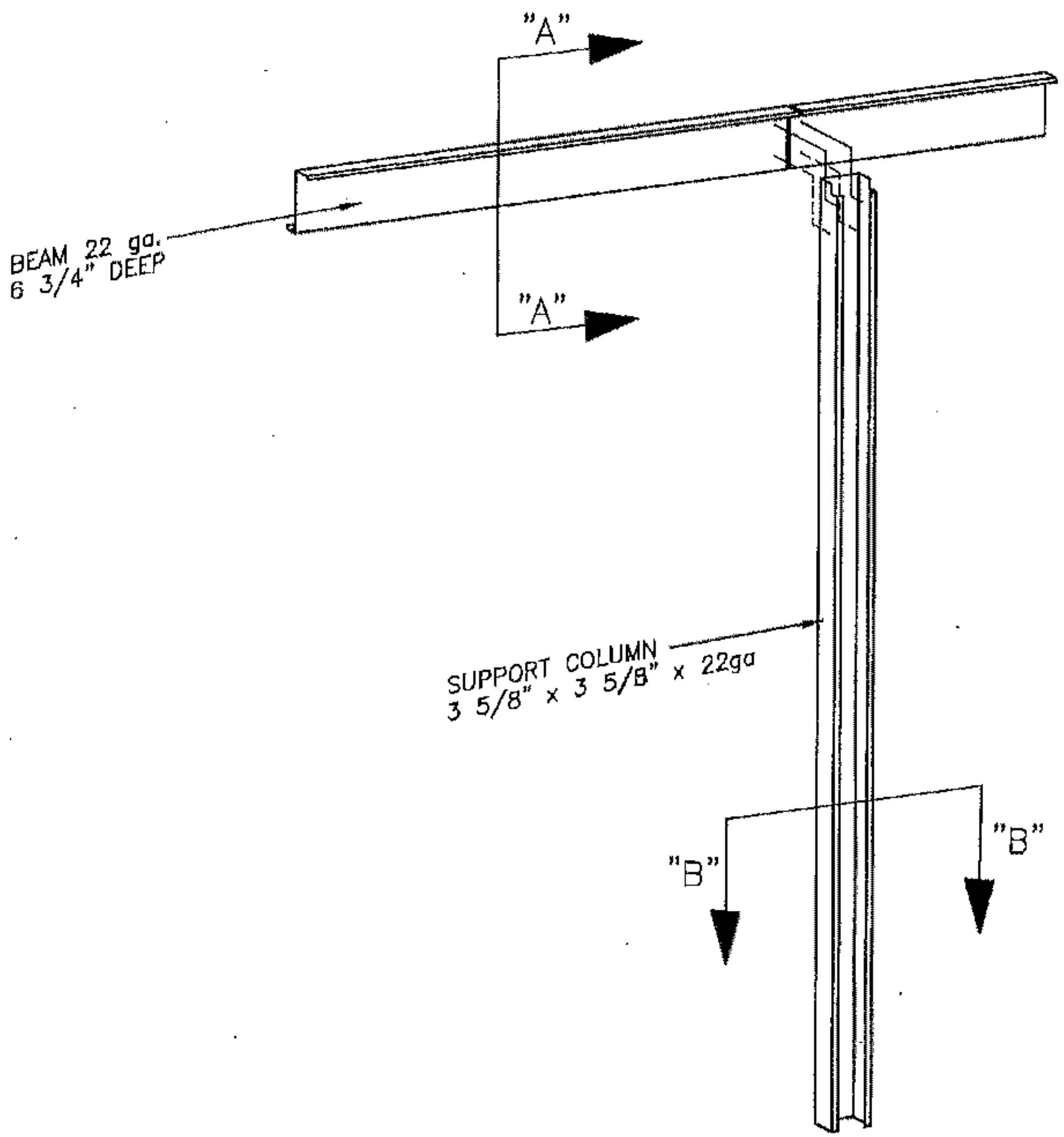
NOTE: SEE BUILDING CROSS SECTION FOR COLUMN HEIGHT & ROOF BEAM HGT. ABOVE FINISHED FLOOR

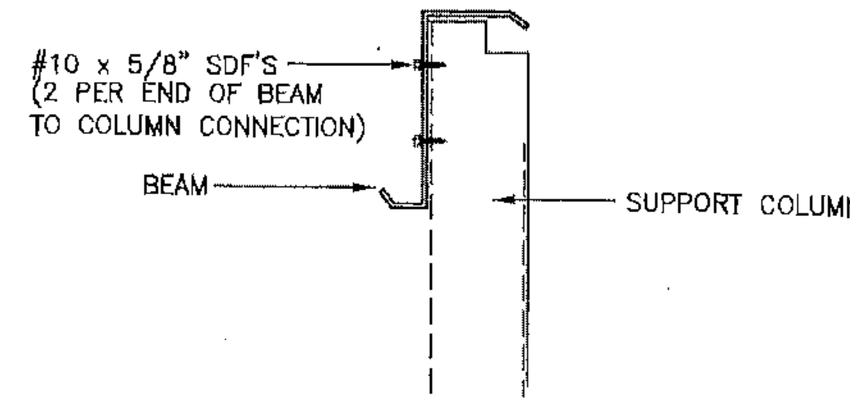
	REVISIONS	DATE	BY
3	REVISED COLUMN SIZE	8-29-02	BAM
2	DETAIL REVISIONS	3-16-99	FOX
1	GENERAL REVISIONS	3-9-99	FOX

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

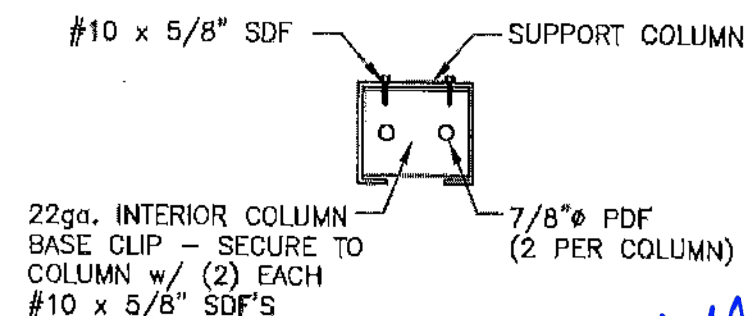
SHEET TITLE: *Interior Column Installation All Heights*

DRAWN BY: J POPE	APPROVED BY:	DRAWING NUMBER:
SCALE: NTS	DATE: 1/30/98	*ERC110X*





SECTION
"A" — "A"



SECTION
"B" — "B"

NOTE: SEE BUILDING CROSS SECTION FOR COLUMN HEIGHT AND FOR ROOF BEAM HEIGHT ABOVE FINISHED FLOOR

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

	REVISIONS	DATE	BY
4	REVISED COLUMN SIZE	8/29/02	BAM
3	GENERAL REVISIONS	3/6/02	BDL
2	REMOVED HOLES FROM BEAM & COLUMN	2/6/02	JCM
1	GENERAL REVISIONS	3-8-98	FOX

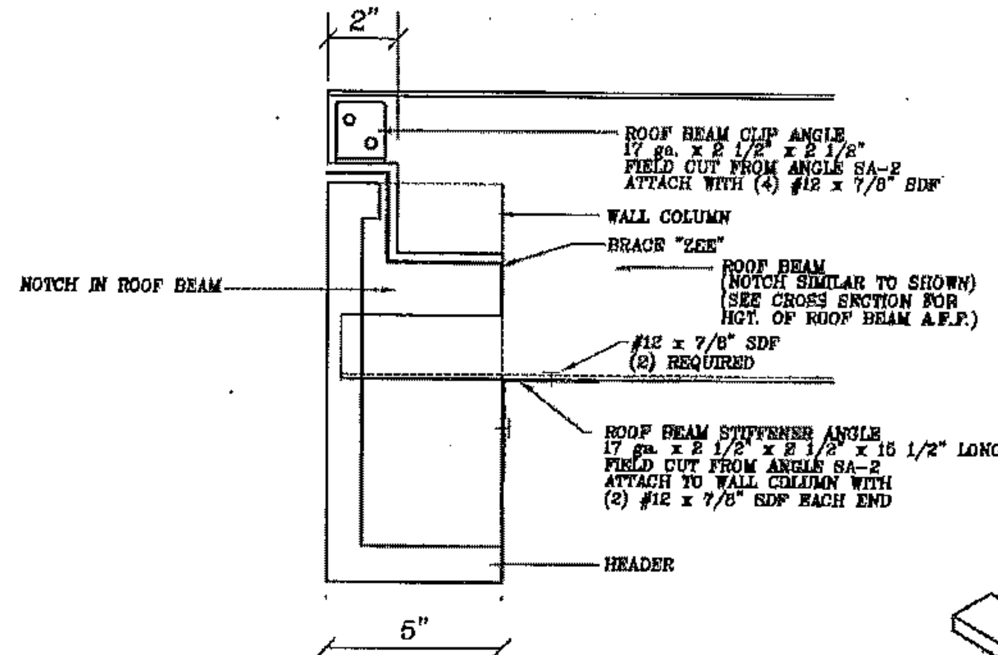
BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: *Interior Door Structure At Corridor Installation All Heights*

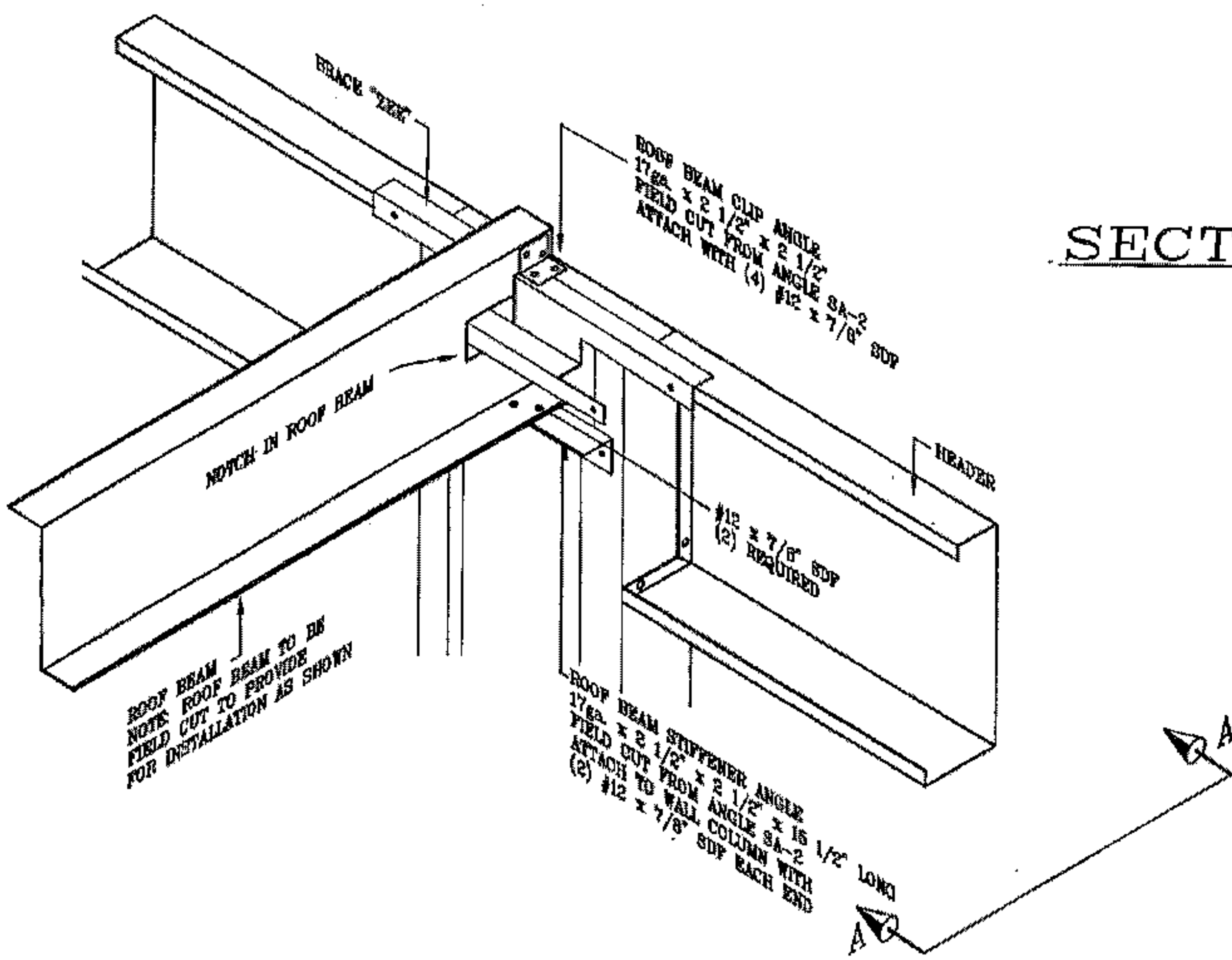
DRAWN BY:	APPROVED BY:	DRAWING NUMBER:
J POPE		ERC112X
SCALE: NTS	DATE: 1/30/98	

BRACE "ZEE" INSTALLATION
THE (2) 3/8" BOLTS THRU THE BRACE "ZEE" INTO THE WALL COLUMN SHOULD ONLY BE "FINGER" TIGHT UNTIL ROOF IS INSTALLED. AFTER ROOF IS INSTALLED TIGHTEN TO NORMAL TORQUE.
...NOTE: BRACE "ZEE" TO FIT IN SLOT AT TOP OF WALL COLUMN AND SCREW TO BACKSIDE OF HEADER...

NOTE:
REFER TO BUILDING CROSS SECTION DRAWING FOR DIMENSION FROM FINISHED FLOOR ELEVATION TO TOP OF ROOF BEAM. NOTCH AND SET ROOF BEAM AT THE HEIGHT SHOWN ON CROSS SECTION SO THAT THE ROOF BEAM IS LEVEL FOR THE ENTIRE LENGTH OF BUILDING.

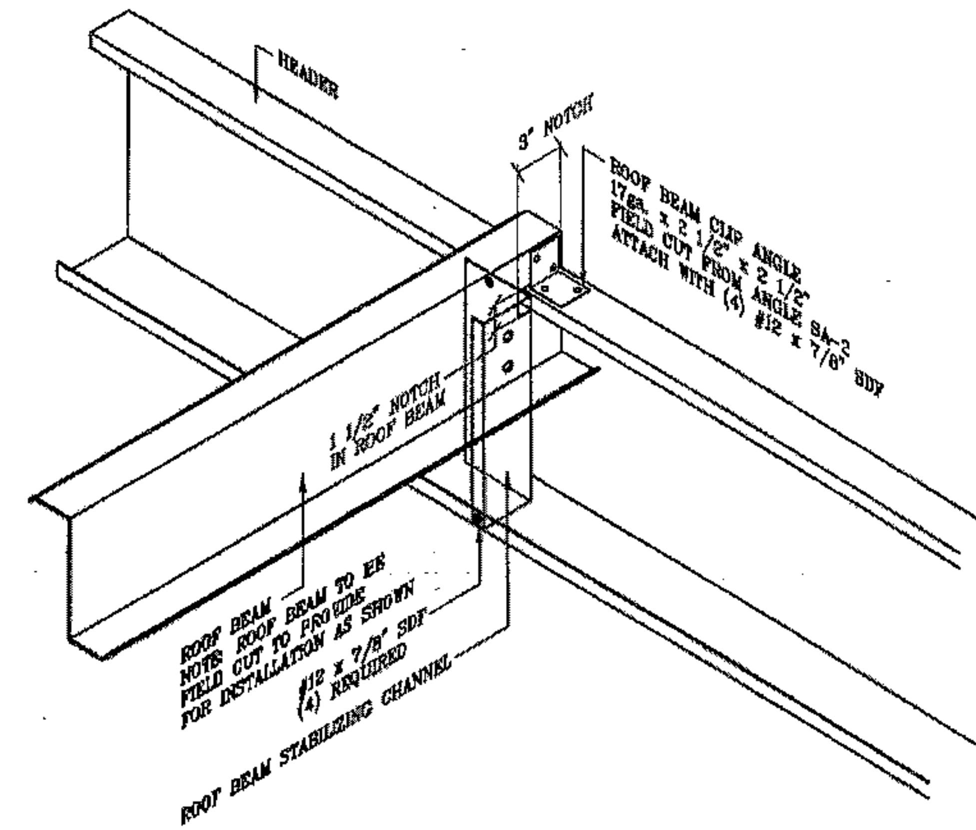


SECTION A—A



ROOF BEAM AT COLUMN

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

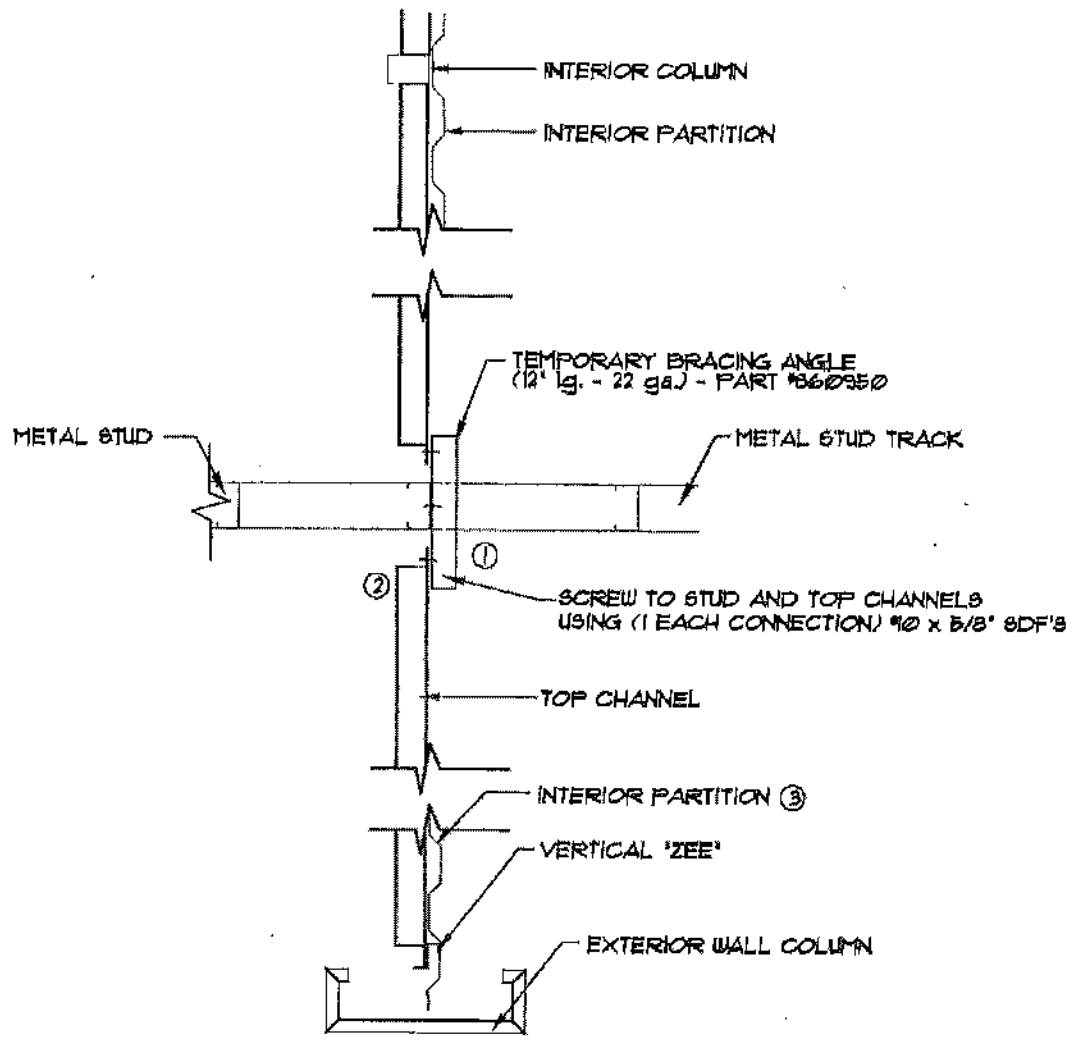


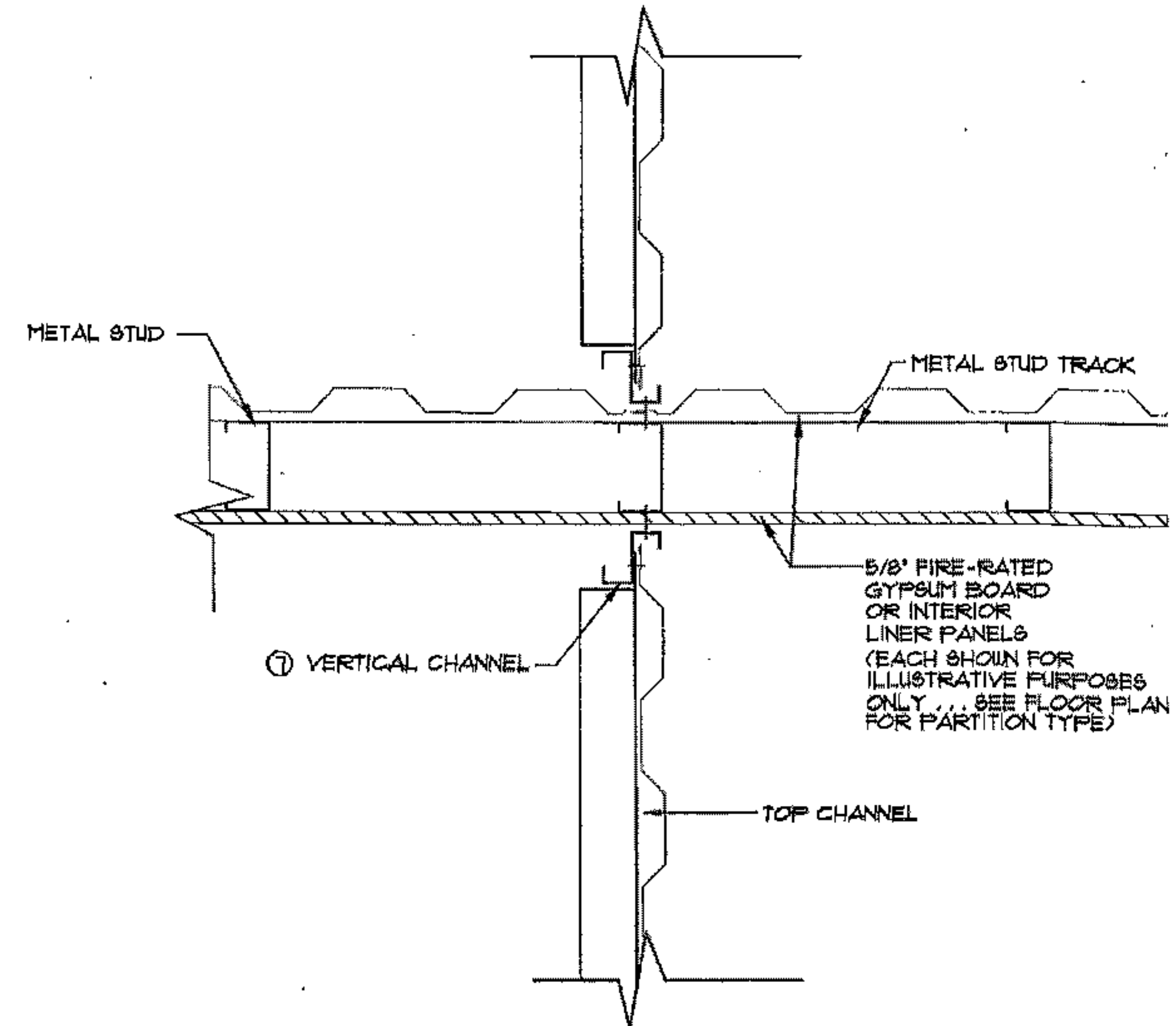
ROOF BEAM AT HEADER

REVISIONS	DATE	BY
2 REVISED FASTENER SIZE	1/15/03	JCM
1 MODIFIED NOTCH IN ROOF BEAM	3/9/99	FOX

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: Roof Beam Assembly Details		
DRAWN BY: B.D.	APPROVED BY:	DRAWING NUMBER: ERC115X
SCALE: NTS	DATE: 5/8/98	





TEMPORARY BRACING ANGLE INSTALLATION DETAIL

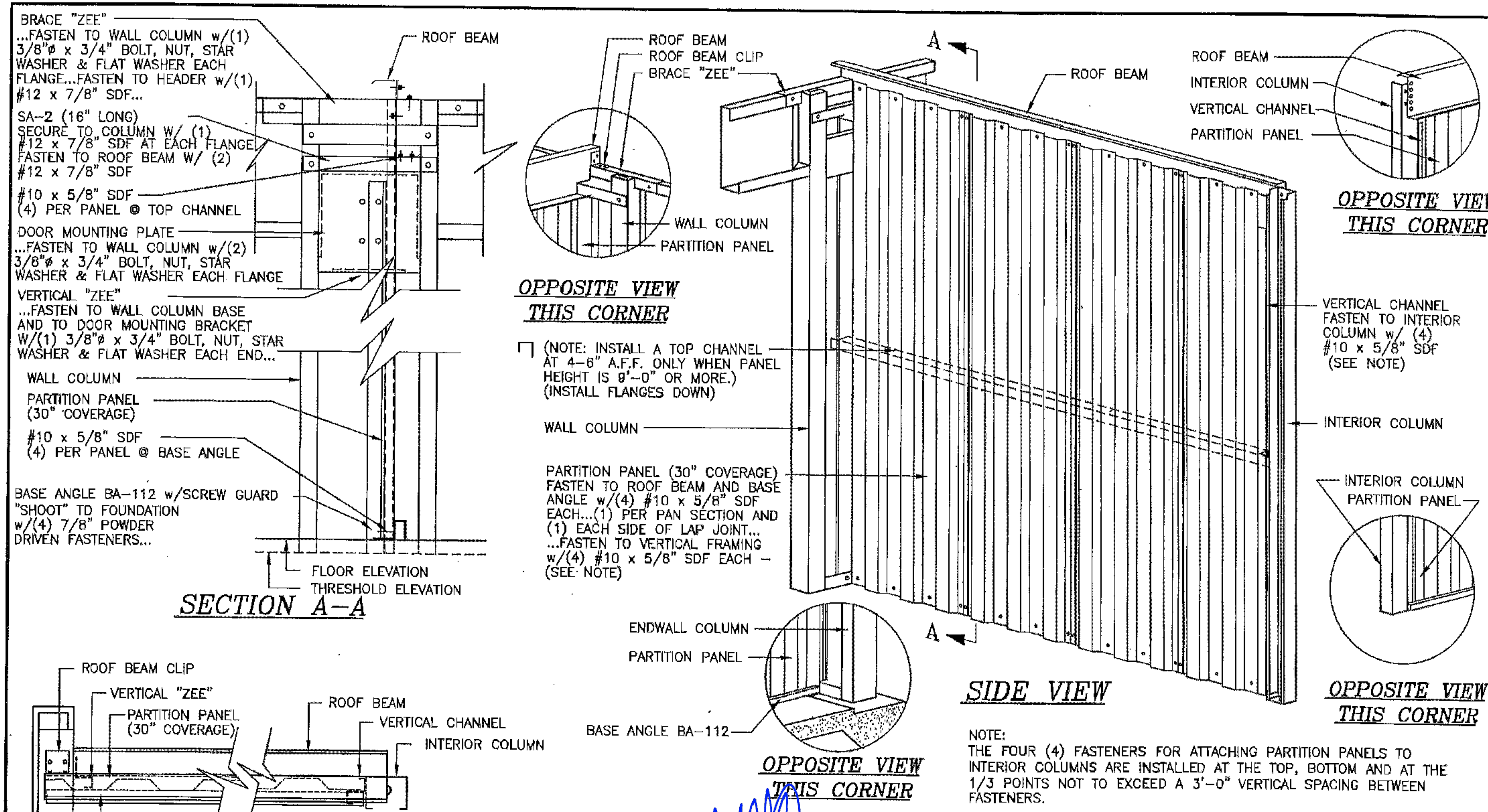
1) AFTER STANDING COLUMNS AND STUDWALL . . . ATTACH TEMPORARY BRACING ANGLE TO STUD AT SAME HEIGHT AS TOP CHANNEL AS SHOWN ON BUILDING CROSS SECTION
2) ATTACH TOP CHANNEL TO TEMPORARY BRACING ANGLE
3) INSTALL 3 PARTITION PANELS & USE TO PLUMB COLUMNS AND STUDWALL
4) IF REQUIRED, INSTALL CONTINUOUS INSULATION SUPPORTS AND INSULATION
5) INSTALL ROOF PANELS
6) REMOVE TEMPORARY BRACING ANGLE PRIOR TO INSTALLING GYPSUM BOARD OR LINER PANELS
7) ATTACH VERTICAL CHANNELS TO STUD
8) ATTACH FRAMING TO VERTICAL CHANNEL & INSTALL REMAINING PARTITION PANELS

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: TEMPORARY BRACING @ PARTITIONS & INT. STUDWALL		
DRAWN BY: B. MCDANIEL	APPROVED BY:	DRAWING NUMBER: ERC130X
SCALE: NTS	DATE: 3/19/98	



NOTE:
THE FOUR (4) FASTENERS FOR ATTACHING PARTITION PANELS TO INTERIOR COLUMNS ARE INSTALLED AT THE TOP, BOTTOM AND AT THE 1/3 POINTS NOT TO EXCEED A 3'-0" VERTICAL SPACING BETWEEN FASTENERS.

REVISIONS	DATE	BY
TURNED DIRECTION OF MID TOP CHANNELS	3/17/4	JCM
REVISED INTERIOR COLUMNS	8/29/02	BAM
ADDED TOP CHANNEL AT PANELS OVER	2/7/02	BDL
ADDED NOTE FOR INTERIOR COLUMNS	3/30/01	TLR
GENERAL REVISIONS	5/6/99	CWM
GENERAL REVISIONS	8/23/98	CJG
REVISION 1	6/4/98	KLH

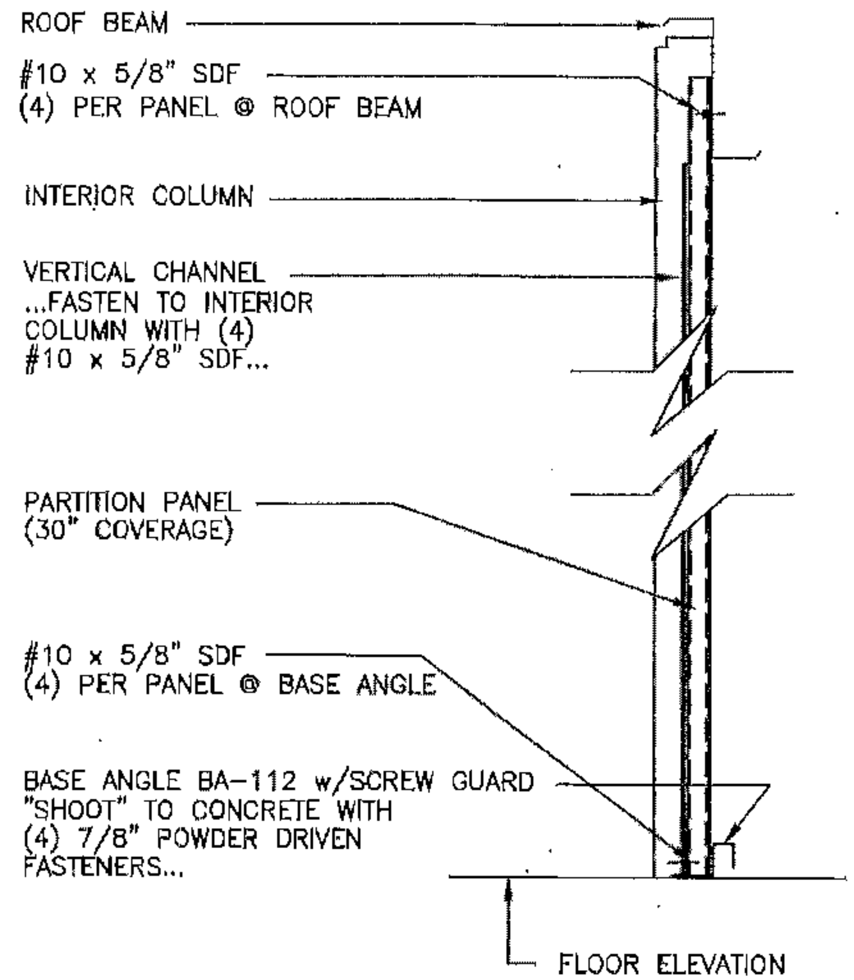
NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

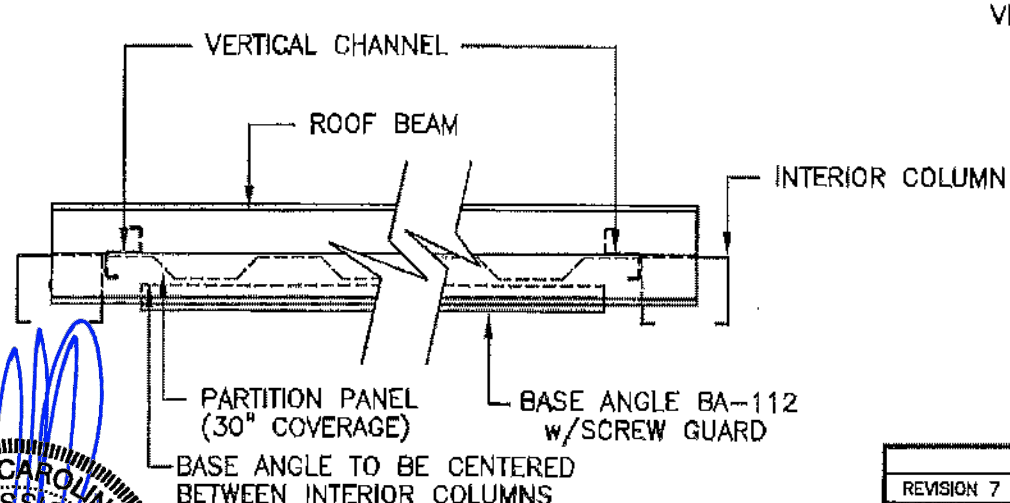
BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: Partition - Endwall Column to Interior Column

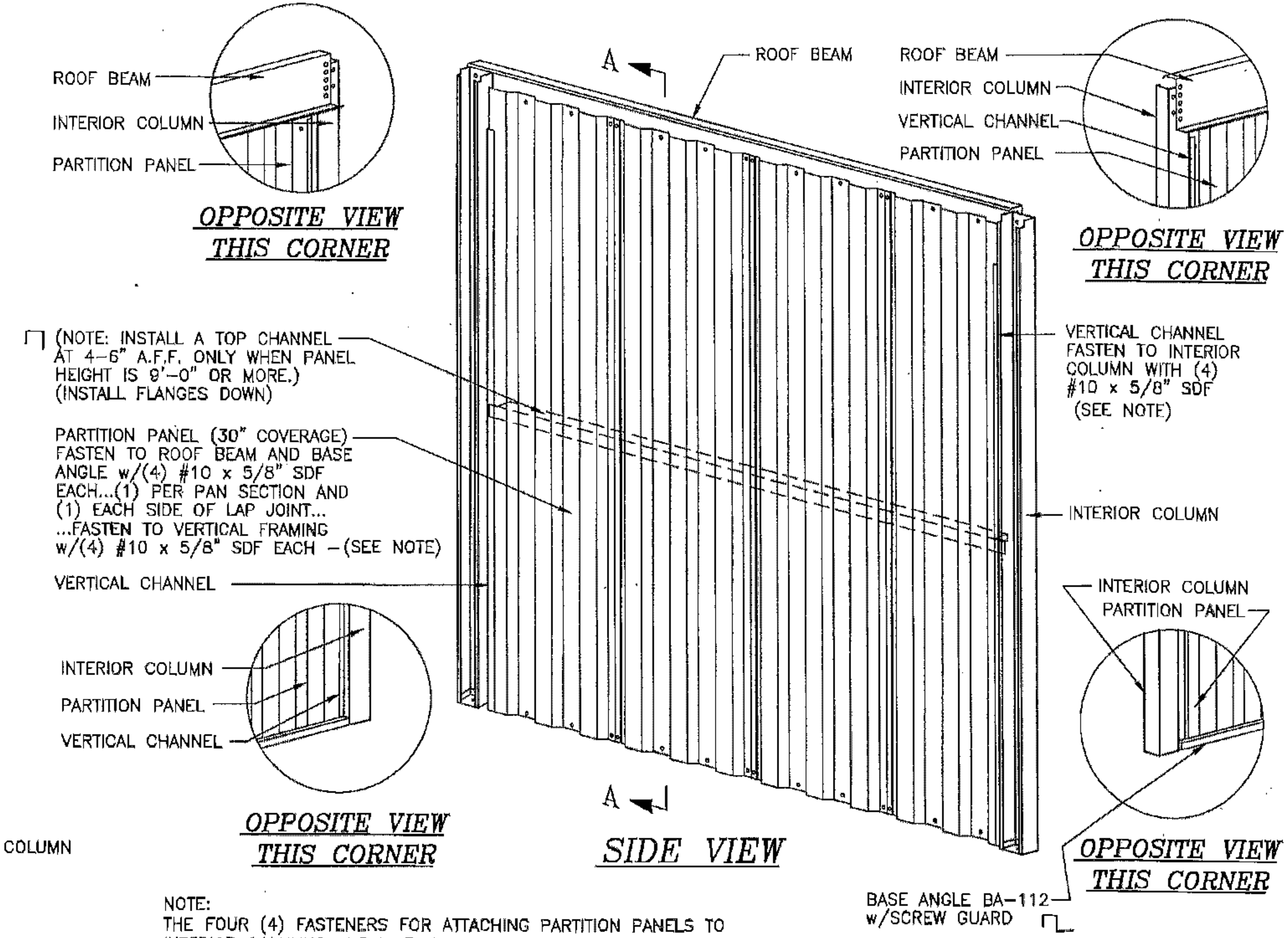
DRAWN BY: J POPE	APPROVED BY:	DRAWING NUMBER: ERC200X
SCALE: NTS	DATE: 6/17/94	



SECTION A-A



PLAN VIEW



SIDE VIEW

NOTE:
THE FOUR (4) FASTENERS FOR ATTACHING PARTITION PANELS TO INTERIOR COLUMNS ARE INSTALLED AT THE TOP, BOTTOM AND AT THE 1/3 POINTS NOT TO EXCEED A 3'-0" VERTICAL SPACING BETWEEN FASTENERS.

REVISIONS		DATE	BY
REVISION 7	REVISED DIRECTION OF MID TOP CHANNEL	3/17/04	JCM
REVISION 6	REVISED INTERIOR COLUMNS	8/28/02	BAM
REVISION 5	ADDED TOP CHANNEL AT PANELS OVER 9'-0"	2/7/02	BDL
REVISION 4	ADDED NOTE FOR INTERIOR COLUMNS	3/30/01	TLR
REVISION 3	GENERAL REVISIONS	3-24-99	FOX
REVISION 2	CORRECT VC	6/23/98	CJG
REVISION 1		6/4/98	KLH

BETCO
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STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: Partition – Interior Column to Interior Column

DRAWN BY: J Pope	APPROVED BY:	DRAWING NUMBER: ERC201X
SCALE: NTS	DATE: 6/20/94	

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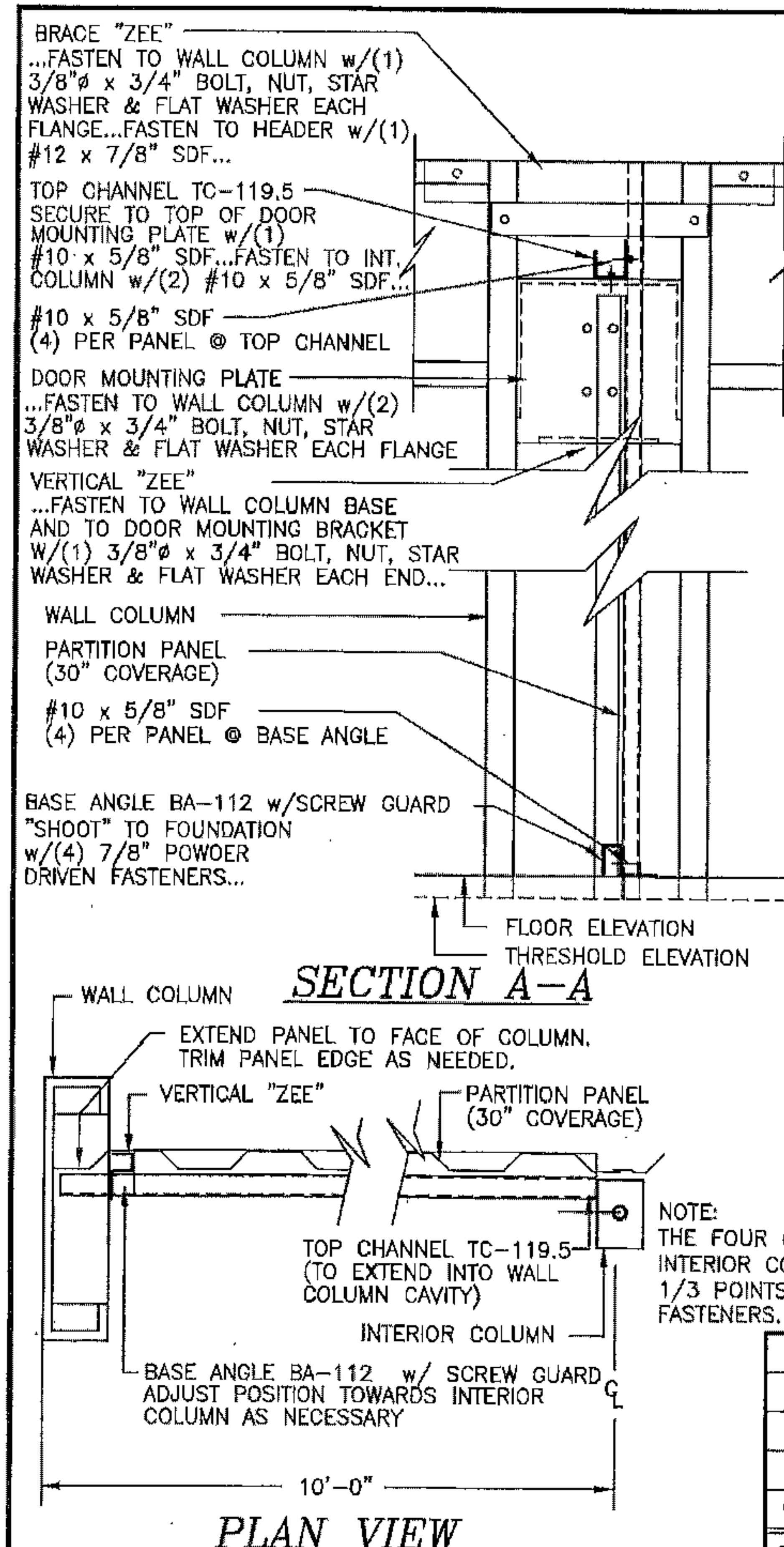
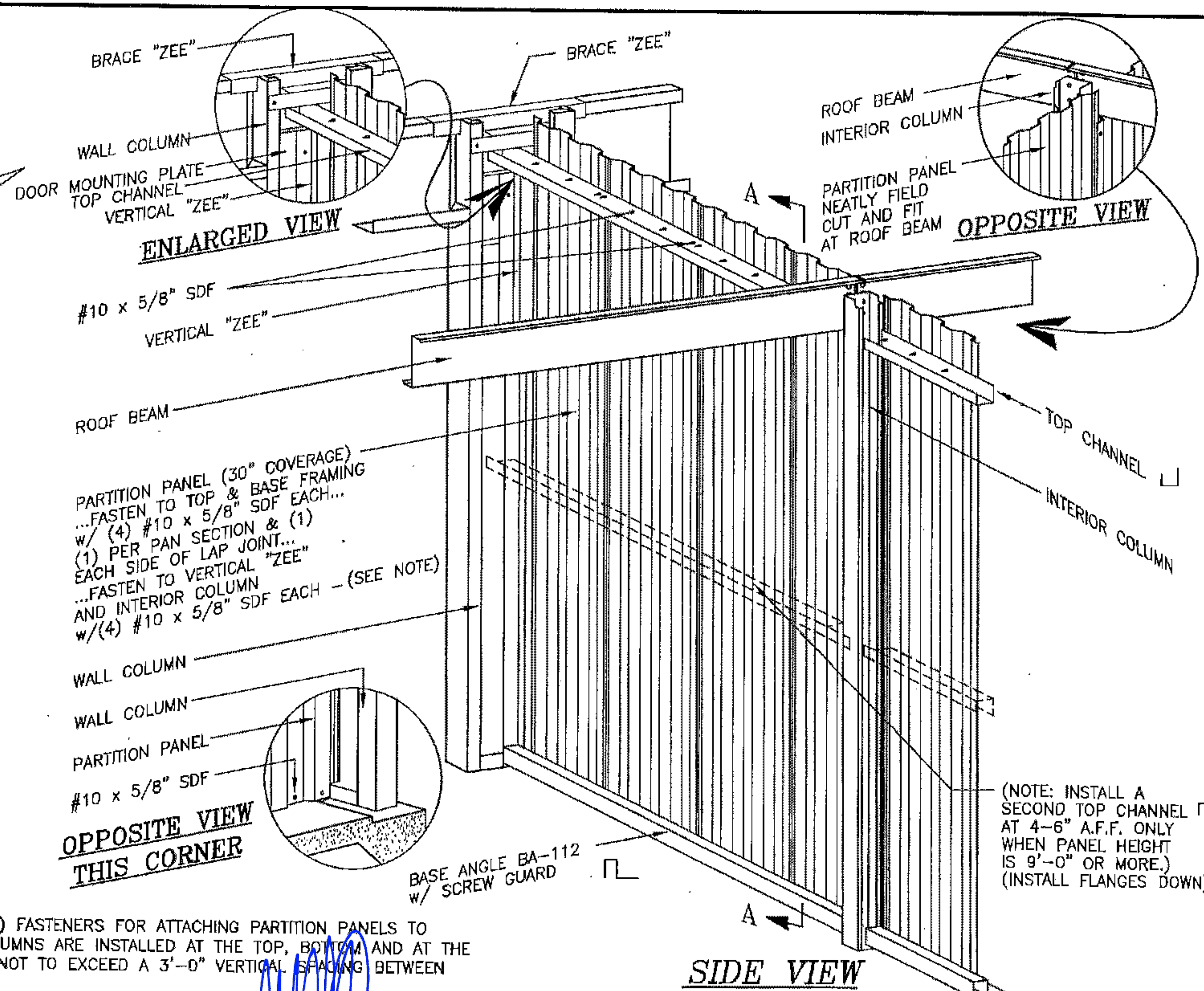
JUN 10 2024





NOTE:
THE FOUR (4) FASTENERS FOR ATTACHING PARTITION PANELS TO INTERIOR COLUMNS ARE INSTALLED AT THE TOP, BOTTOM AND AT THE 1/3 POINTS NOT TO EXCEED A 3'-0" VERTICAL SPACING BETWEEN FASTENERS.

REVISED DIRECTION OF MID TOP CHANNEL	3/17/04	JCM
REVISED INTERIOR COLUMNS	6/29/02	BAM
ADDED TOP CHANNEL AT PANELS OVER 9'-0"	2/7/02	BDL
ADDED NOTE FOR INTERIOR COLUMNS	4/2/01	TLR
GENERAL REVISIONS	4/12/99	CWM
REVISIONS	DATE	BY

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JUN 10 2024

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STATESVILLE, NC 28625
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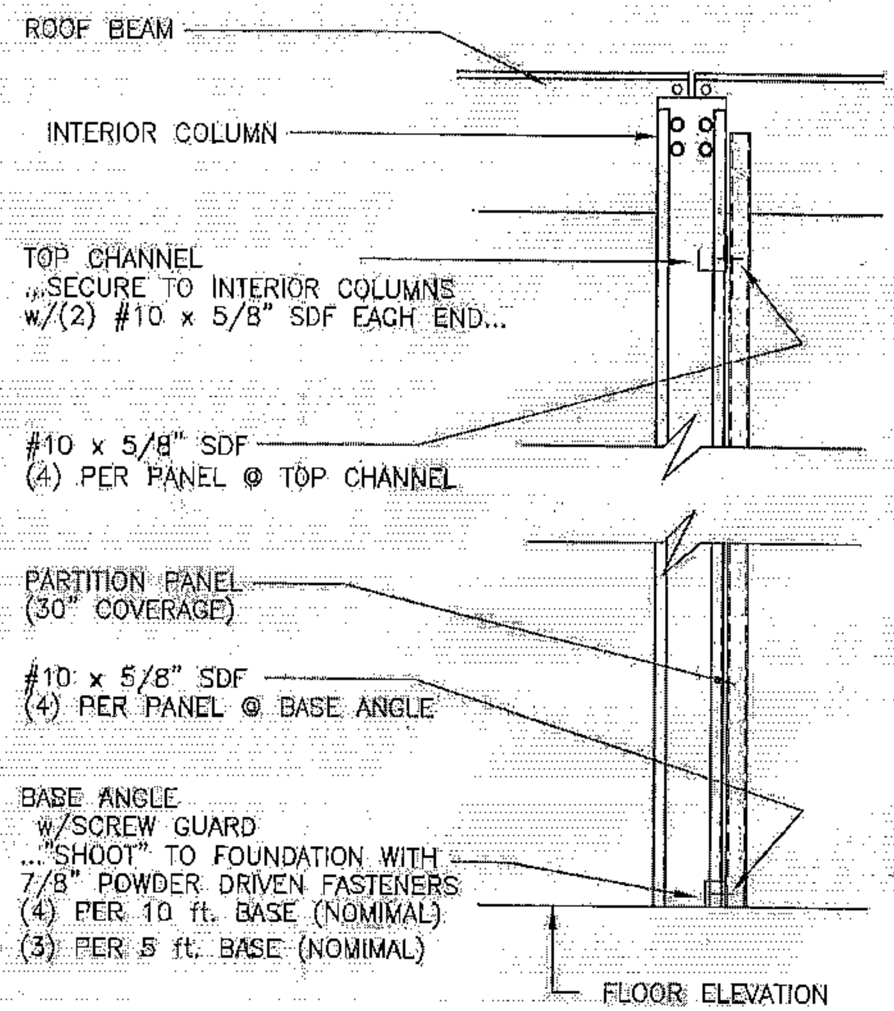
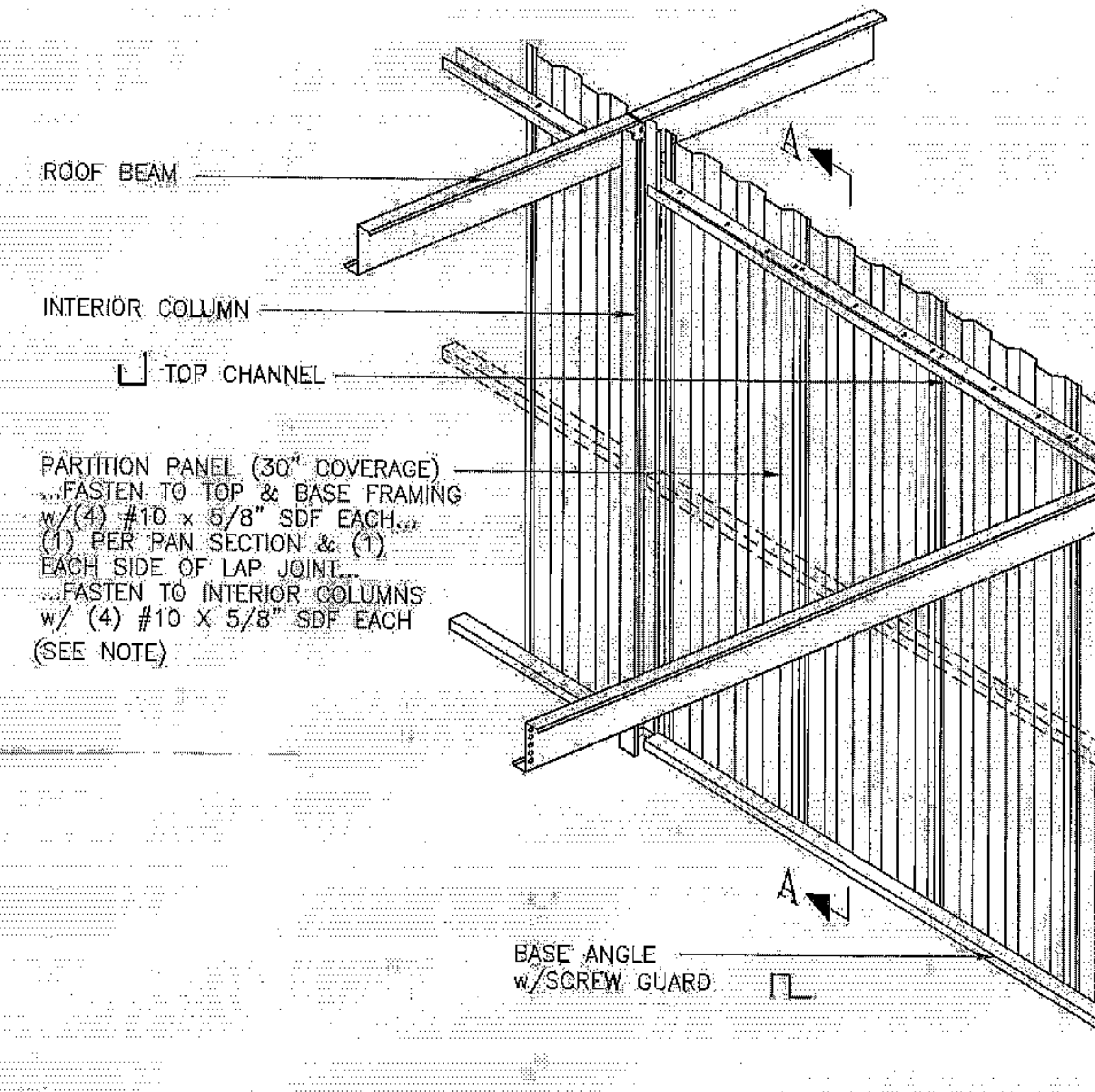
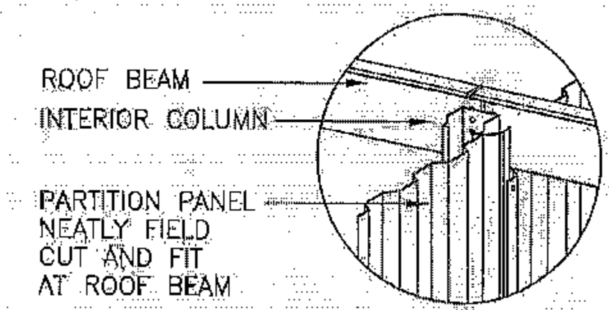
SHEET TITLE: Partition – Sidewall Column to Interior Column – 10' span

DRAWN BY: J Pope
APPROVED BY:
DRAWING NUMBER: ERC202X
SCALE: NTS
DATE: 6/20/94



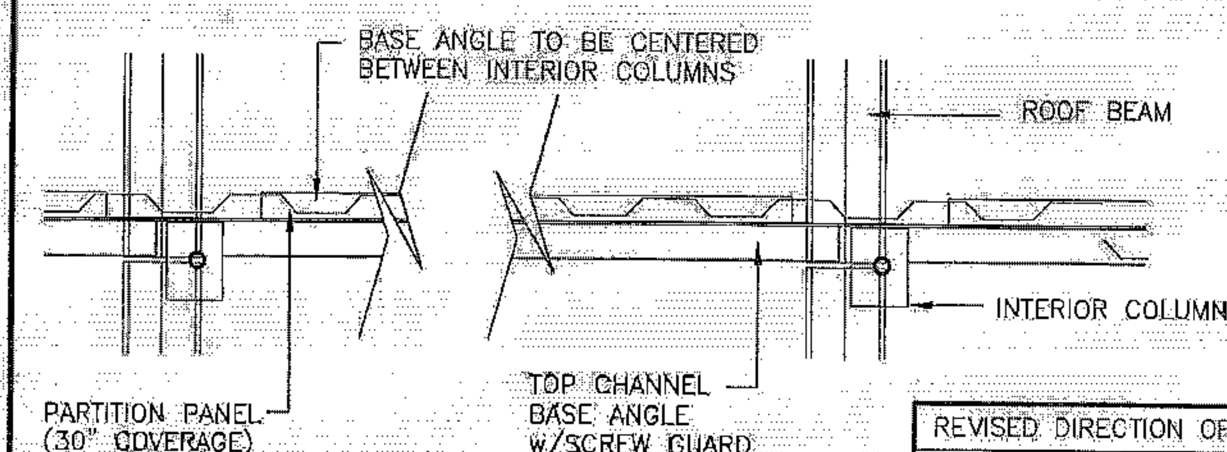
SECTION A–A





OPPOSITE VIEW
AT ROOF BEAM

SIDE VIEW



PLAN VIEW

NOTE:
THE FOUR (4) FASTENERS FOR ATTACHING PARTITION PANELS TO INTERIOR COLUMNS ARE INSTALLED AT THE TOP, BOTTOM AND AT THE 1/3 POINTS NOT TO EXCEED A 3'-0" VERTICAL SPACING BETWEEN FASTENERS.

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029129 STEVEN W. SCHAUB

JUN 10 2024

REVISIONS	DATE	BY
REVISED DIRECTION OF MID TOP CHANNEL	3/17/04	JCM
REVISED INTERIOR COLUMNS	8/29/02	BAM
ADDED TOP CHANNEL AT PANELS OVER 9'-0"	2/7/02	BDL
ADDED NOTE FOR INTERIOR COLUMNS	4/2/01	TLR
GENERAL REVISIONS	5/7/99	CJG

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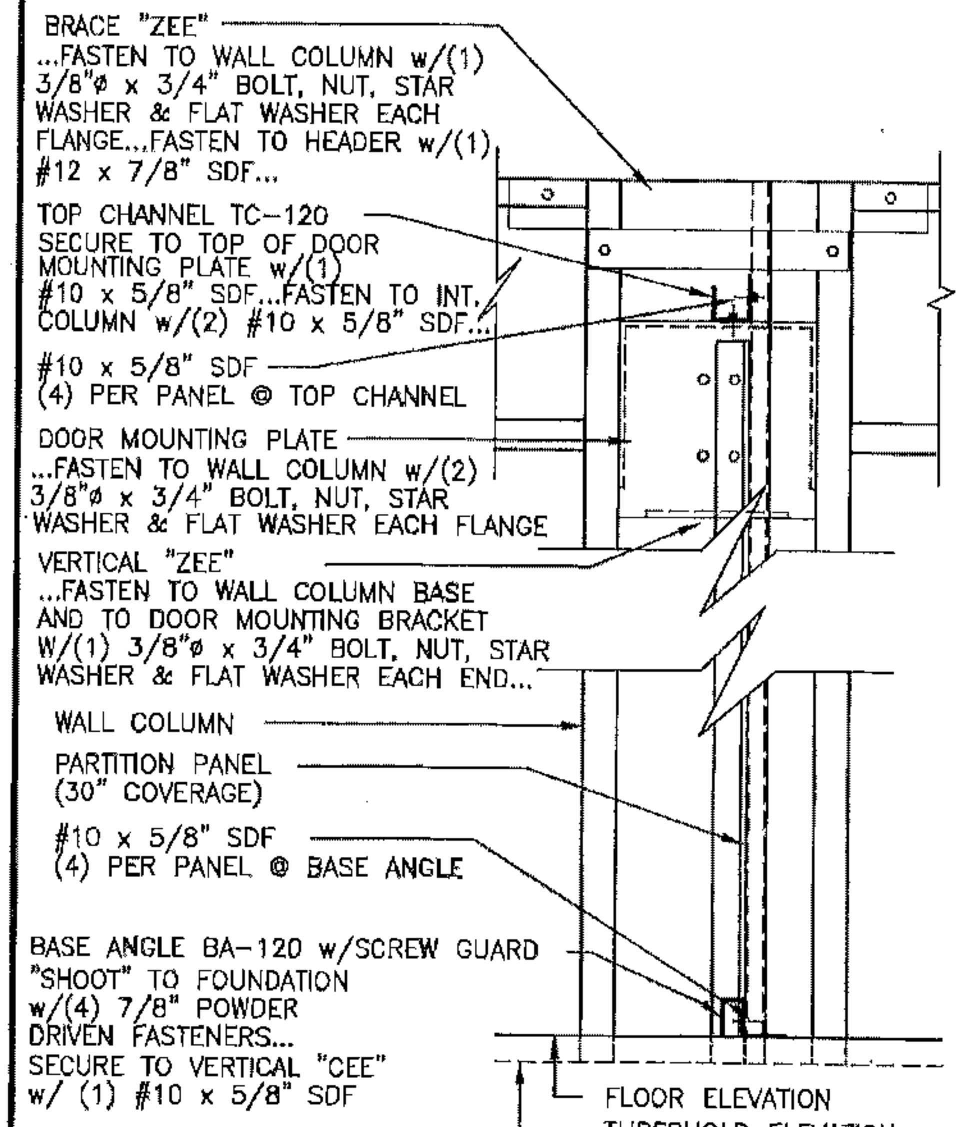
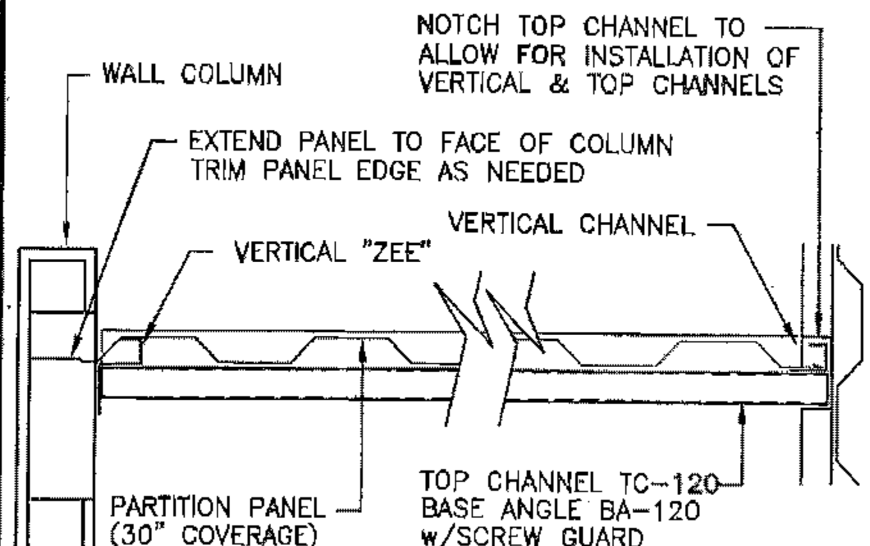
SHEET TITLE: Partition – Interior Column to Interior Column (all eave heights)

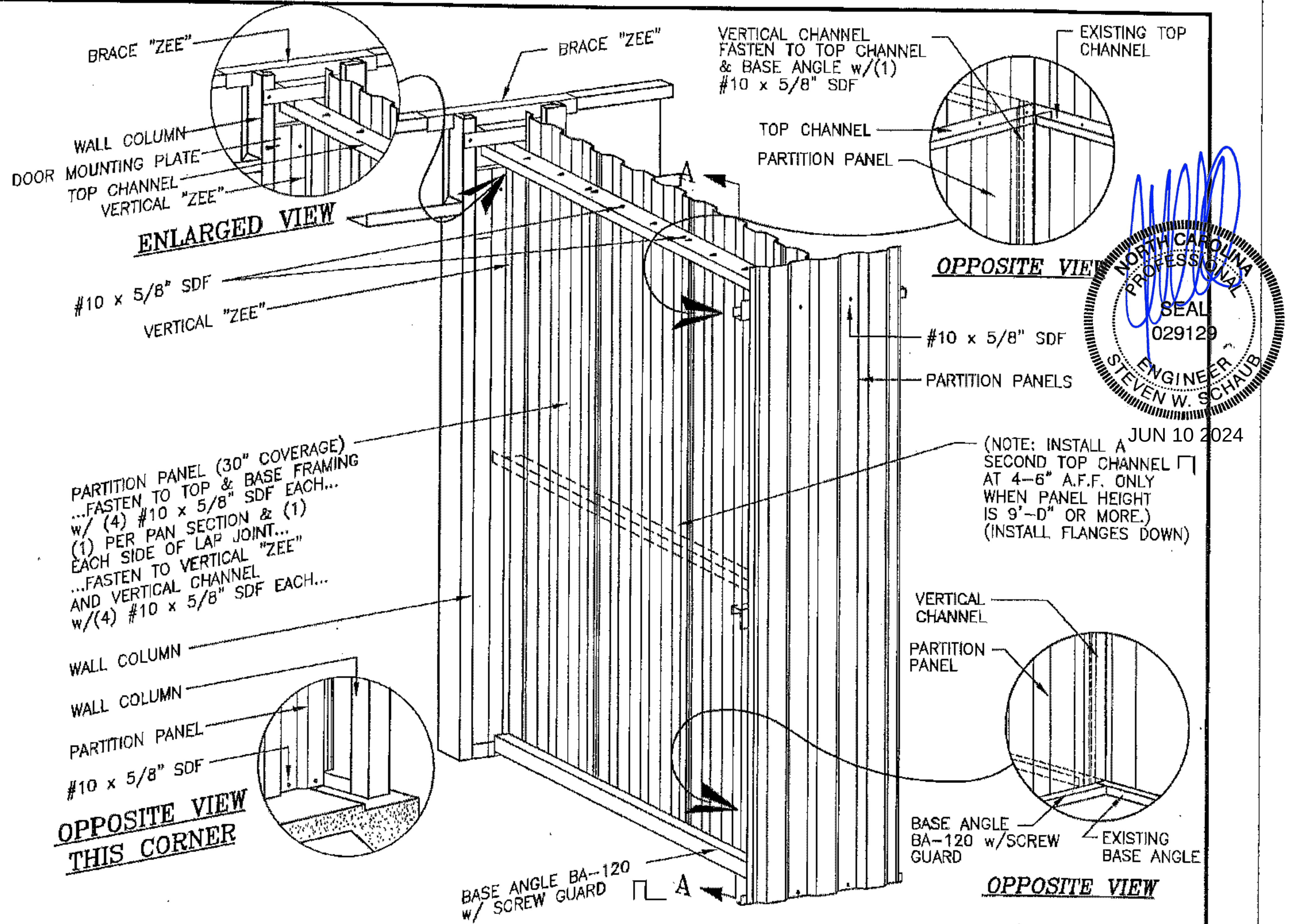
DRAWN BY: J POPE
APPROVED BY:
DRAWING NUMBER: ERC203X
SCALE: NTS
DATE: 6/22/98



SECTION A–A



PLAN VIEW



SIDE VIEW

REVISIONS	DATE	BY
REVISED DIRECTION OF MID HAT CHANNEL	3/17/04	JCM
REVISED FASTENER NOTE	8/30/02	JCM
ADDED TOP CHANNEL AT PANELS OVER 9'-0"	2/7/02	BDL
GENERAL REVISIONS	4/2/01	TLR
GENERAL REVISIONS	5/6/99	CWM
GENERAL REVISIONS	6/23/98	CJG

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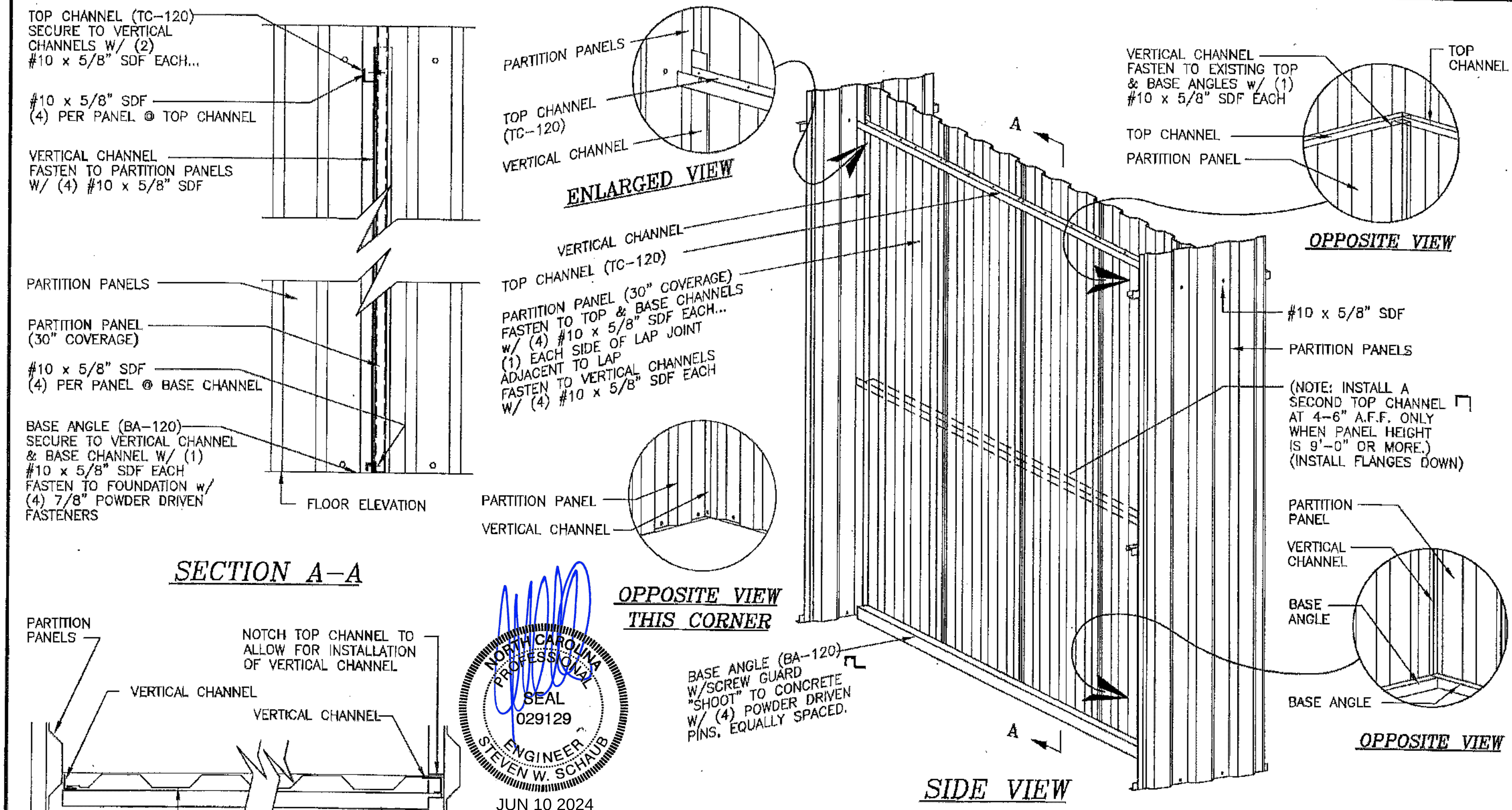
SHEET TITLE: Partition – Endwall Column to Interior Partition

DRAWN BY: J Pope	APPROVED BY:	DRAWING NUMBER: ERC207X
SCALE: NTS	DATE: 6/24/94	



REVISED DIRECTION OF MID TOP CHANNEL	3/17/04	JCM
ADDED TOP CHANNEL AT PANELS OVER 9'-0"	2/7/02	BDL
REVISIONS	DATE	BY

BETCO
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STATESVILLE, NC 28625
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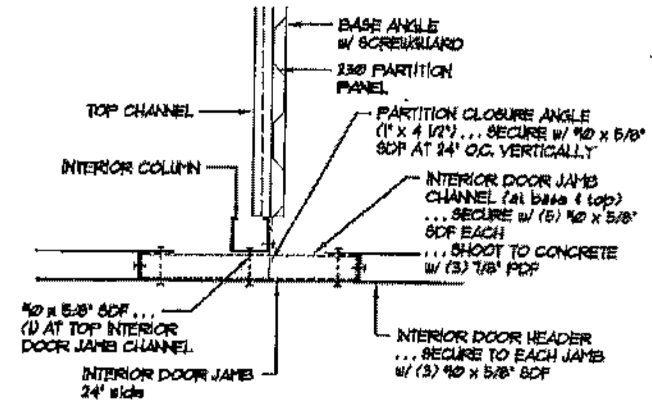
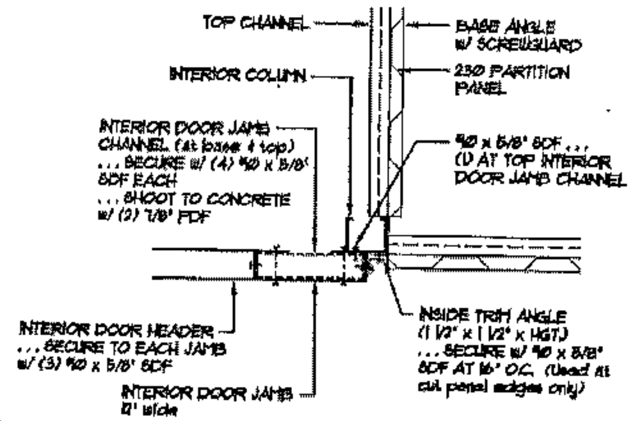
SHEET TITLE: Partition – Interior Partition to Interior Partition

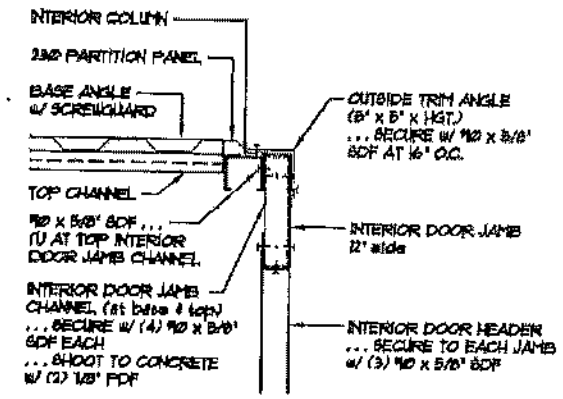
DRAWN BY: J Pope	APPROVED BY:	DRAWING NUMBER:
SCALE: NTS	DATE: 6/24/94	ERC208X



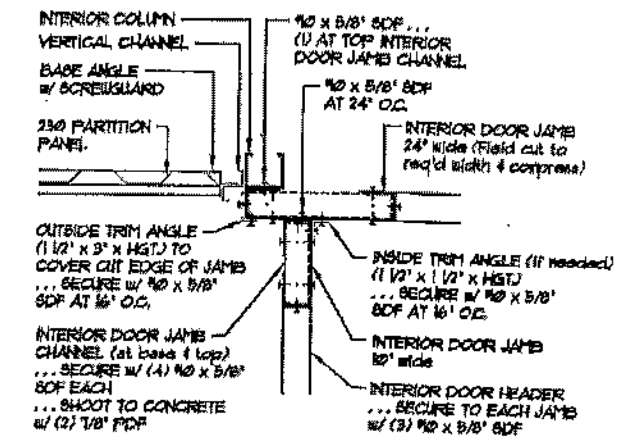
A 250 DOOR JAMB CONNECTION AT INTERIOR COLUMN



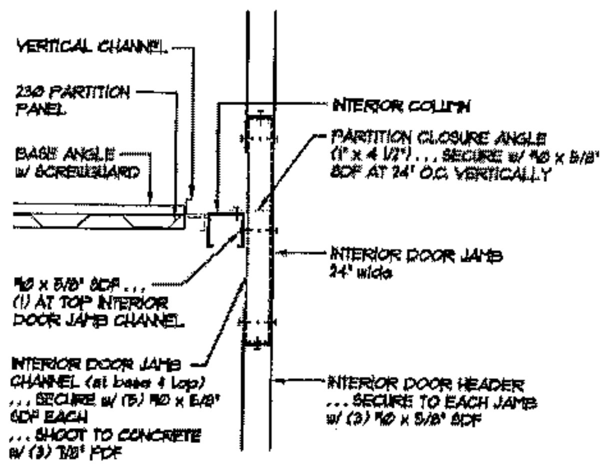
B 250 DOOR JAMB CONNECTION AT INTERIOR COLUMN AND PARTITION PANEL



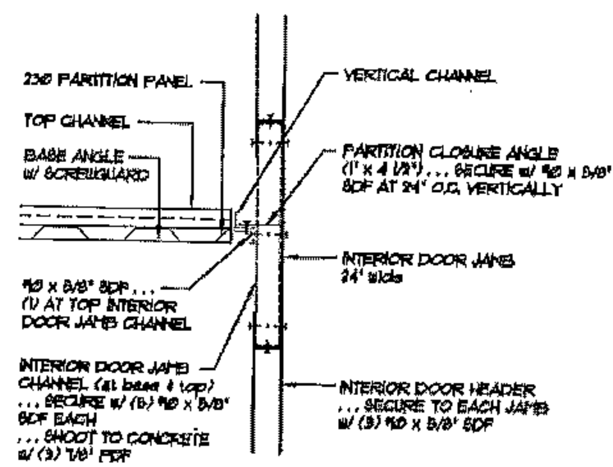
C 250 DOOR JAMB CONNECTION AT OUTSIDE CORNER



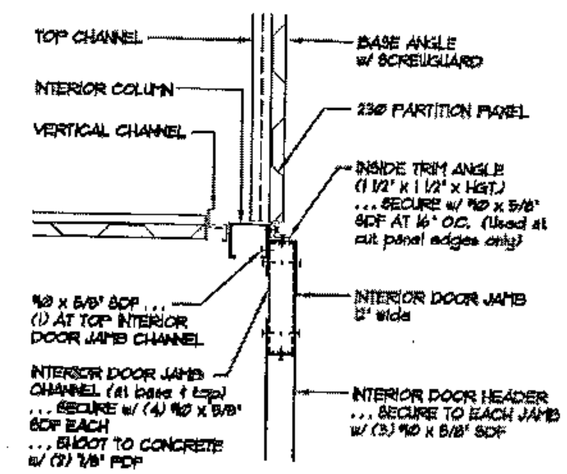
D 250 DOOR JAMB CONNECTION AT INSIDE CORNER



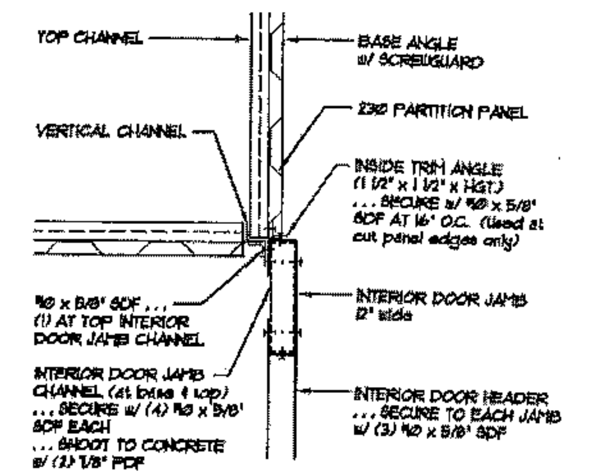
E 250 DOOR JAMB CONNECTION AT INTERIOR COLUMN



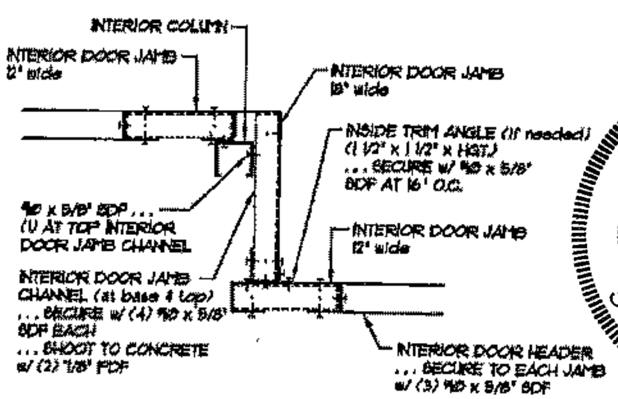
F 250 DOOR JAMB CONNECTION AT VERTICAL CHANNEL



G 250 DOOR JAMB CONNECTION AT INTERIOR COLUMN AND PARTITION PANEL

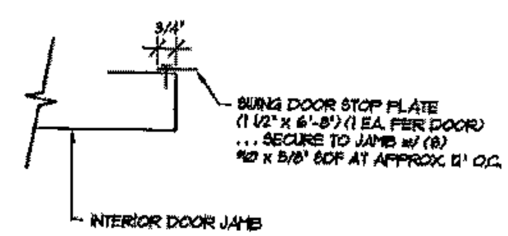


H 250 DOOR JAMB CONNECTION AT VERTICAL CHANNEL AND PARTITION PANEL

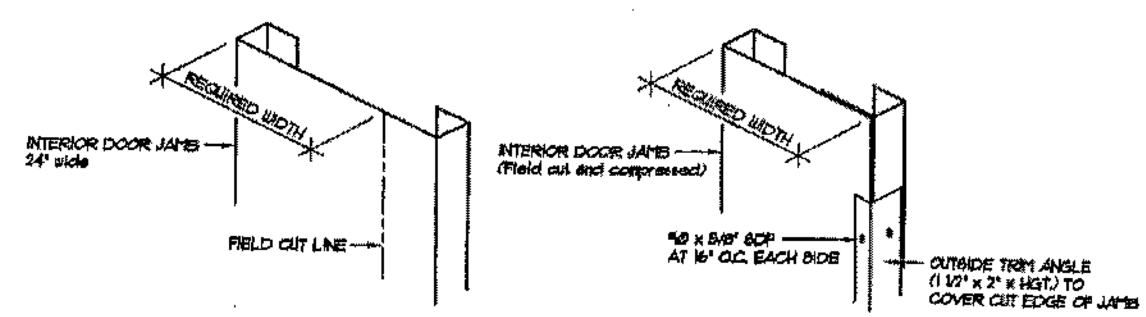


I 250 DOOR JAMB CONNECTION AT 18" CORRIDOR OFFSET

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024



DETAIL FOR THE ADDITION OF DOOR STOPS AT AN INTERIOR SWING DOOR



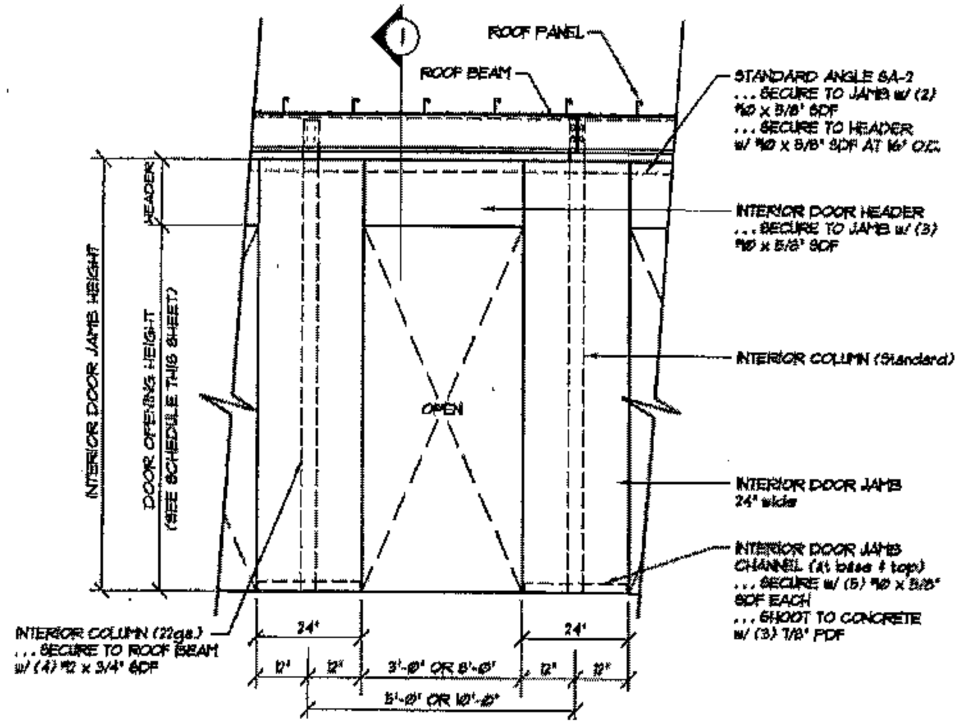
DETAIL FOR THE FIELD CUTTING AND COMPRESSION OF INTERIOR DOOR JAMBS

REVISIONS	DATE	BY
REVISED DOOR STOP DETAIL	1/26/09	BDL
ADDED DETAIL " I / 250 "	8/10/06	BDL
ADDED PARTITION CLOSURE ANGLES	10/26/01	BDL
ADDED FIELD CUT/COMPRESS DETAIL	2/8/01	BDL

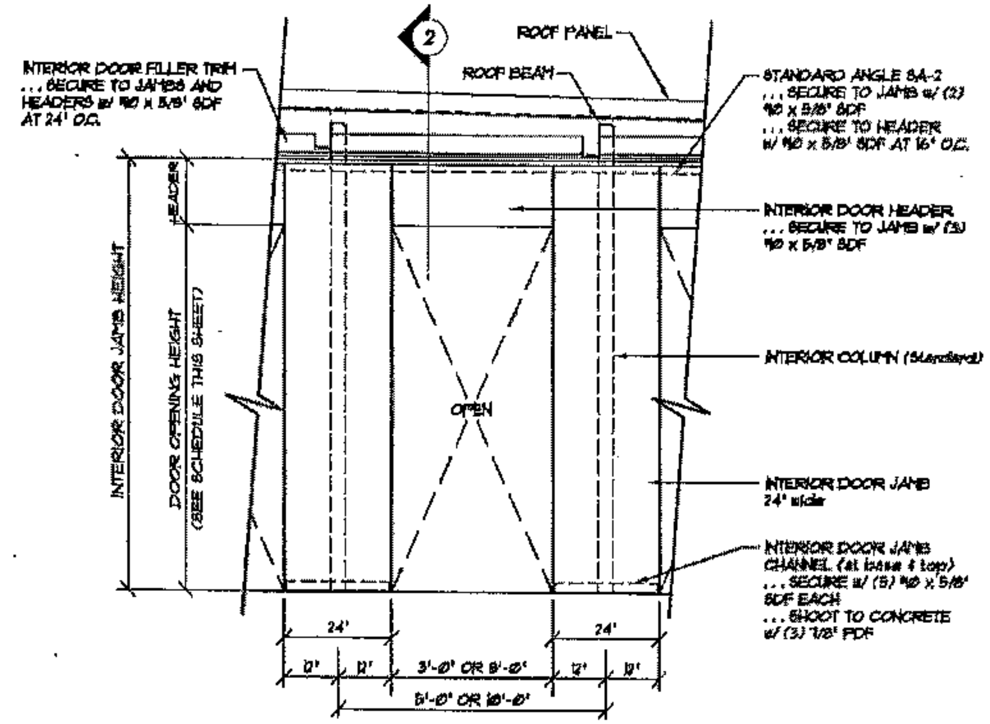
BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)854-7813

SHEET TITLE: Typical Interior Corridor Details

DRAWN BY:	APPROVED BY:	DRAWING NUMBER:
BDL		
SCALE: NTS	DATE: 9/7/00	ERC250X



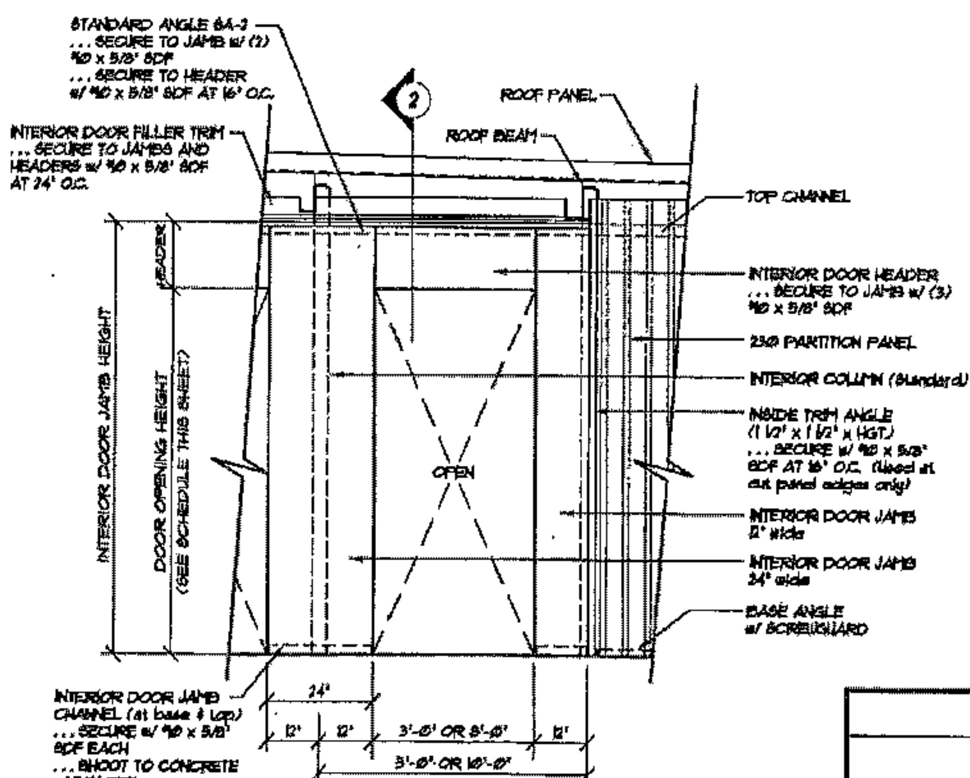
A
252
ELEVATION OF INTERIOR DOOR FRAMING PARALLEL TO ROOF BEAM



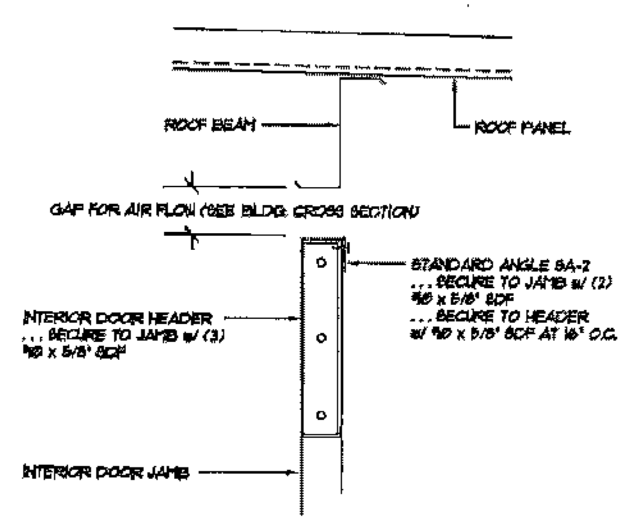
B
252
ELEVATION OF INTERIOR DOOR FRAMING PERPENDICULAR TO ROOF BEAM

NOTES :
Roof insulation is not shown for clarity.
See ERC2B0X for installation of door stops at swing doors.

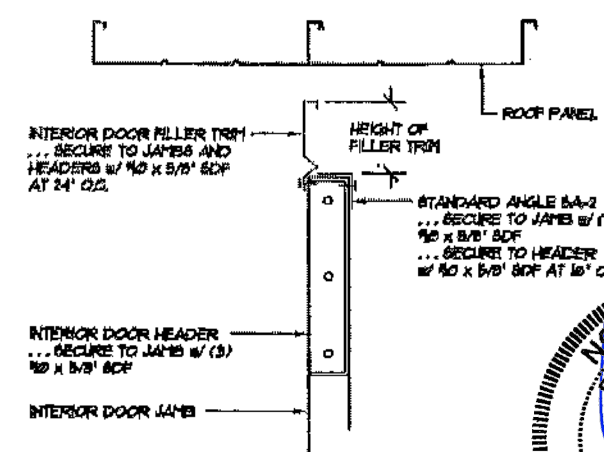
DOOR OPENING HEIGHT SCHEDULE (Note: See Floor Plans to determine interior door heights)		
INTERIOR DOOR HEIGHT	ROLL-UP DOOR OPENING HEIGHT	SWING DOOR OPENING HEIGHT
6'-8"	6'-8"	6'-9 1/2"
7'-0"	7'-0"	7'-1 1/2"



C
252
ELEVATION OF INTERIOR DOOR FRAMING PERPENDICULAR TO ROOF BEAM WITH ADJOINING PARTITION PANELS



SECTION "1"



SECTION "2"

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

REVISED DUE TO DOOR HEIGHT CHANGE	4/7/05	BDL
REVISIONS	DATE	BY

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

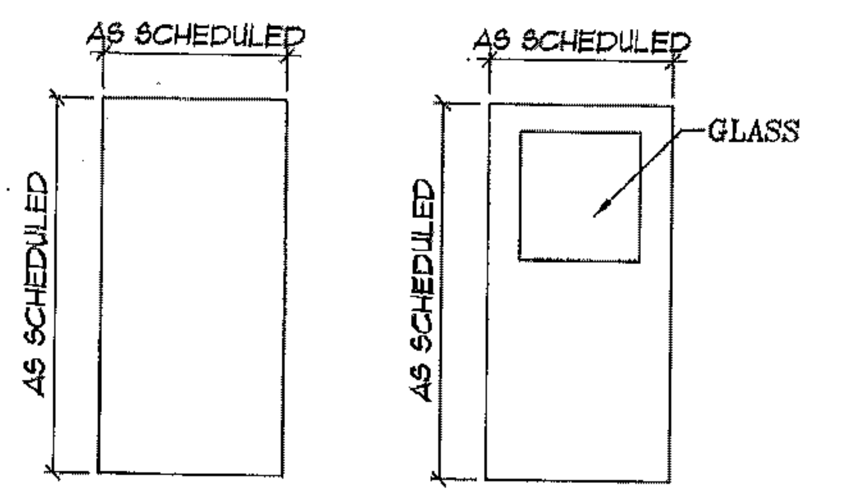
SHEET TITLE: Interior Corridor Elevations

DRAWN BY: BDL | APPROVED BY: | DRAWING NUMBER: ERC252X
SCALE: NTS | DATE: 9/7/00

DOOR SCHEDULE

DOOR NUMBER	WIDTH	HEIGHT	DOOR THICK	DOOR TYPE	HARDWARE DESCRIPTION	REMARKS
3068	3'-0"	6'-8"	1 3/4"	1	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
3668	3'-6"	6'-8"	1 3/4"	1	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
4068	4'-0"	6'-8"	1 3/4"	1	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
3068	3'-0"	6'-8"	1 3/4"	2	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
3668	3'-6"	6'-8"	1 3/4"	2	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
4068	4'-0"	6'-8"	1 3/4"	2	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
3070	3'-0"	7'-0"	1 3/4"	1	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
3670	3'-6"	7'-0"	1 3/4"	1	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
4070	4'-0"	7'-0"	1 3/4"	1	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
3070	3'-0"	7'-0"	1 3/4"	2	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
3670	3'-6"	7'-0"	1 3/4"	2	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD
4070	4'-0"	7'-0"	1 3/4"	2	LEVER/LEVER LOCKSET	SELF LATCHING WITH CLOSER & THRESHOLD

DOOR TYPE (SEE DOOR OPTIONS)



1 SOLID – FLUSH   2 1/2 GLASS – FLUSH

DOOR OPTIONS

OPTIONS
L – LOUVER (12" x 12")
FL – RATED LOUVER (12" x 12")
P – PANIC HARDWARE
K – KICKPLATE
PP – PUSH PLATE/PULL PLATE
G – 20 x 24 INSULATED 1" THERMOPLANE INSERT
FG – 10 x 10 UL APPROVED GLASS INSERT
A – THREE HOUR RATED
B – ONE HOUR RATED

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JUN 10 2024

	DOOR NUMBER	DOOR TYPE	OPTIONS
EXAMPLE:	3068 –	2 –	L,K,P,G

THIS IS A 3'-0" x 6'-8" – 1/2 GLASS PERSONNEL DOOR WITH 20 x 24 GLASS, LOUVER, KICKPLATE AND PANIC HARDWARE.

REVISIONS	DATE	BY
REVISED 'A' TO THREE HOUR RATED	11/29/11	JCM
REVISED DUE TO DOOR HEIGHT CHANGE	4/1/05	BDL

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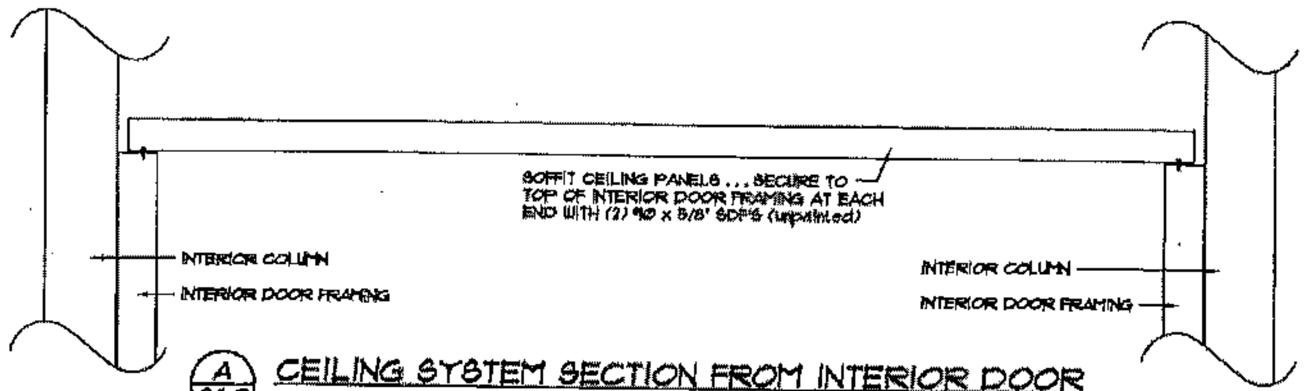
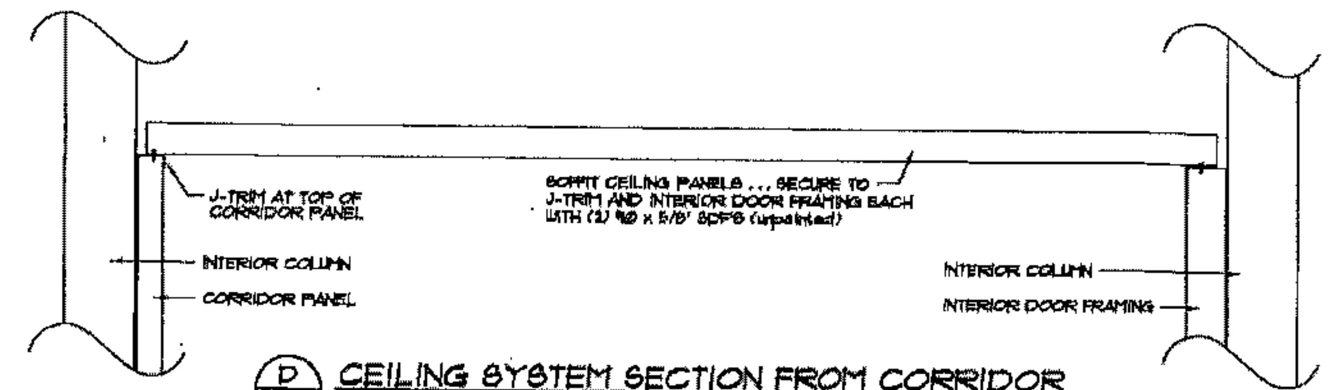
SHEET TITLE: Standard Swing Door Hardware Schedule

DRAWN BY: JRB	APPROVED BY:	DRAWING NUMBER: ERC254X
SCALE: NTS	DATE: 3/7/01	



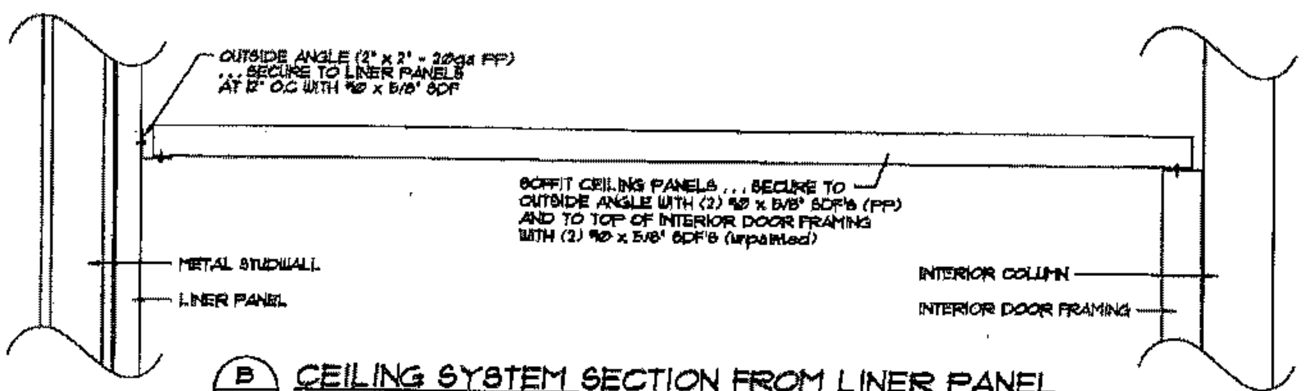
A/260 CEILING SYSTEM SECTION FROM INTERIOR DOOR FRAMING TO INTERIOR DOOR FRAMING

NOT TO SCALE



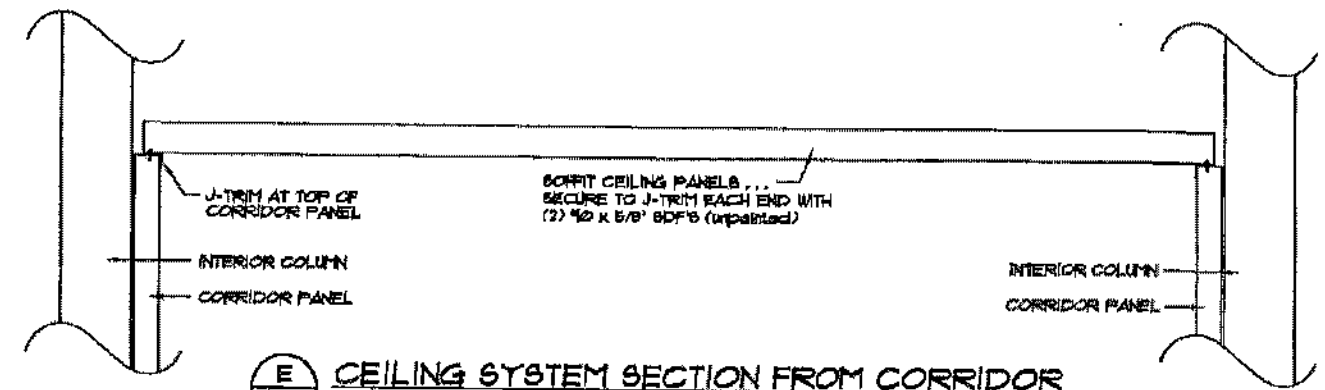
D/260 CEILING SYSTEM SECTION FROM CORRIDOR PANELTO INTERIOR DOOR FRAMING

NOT TO SCALE



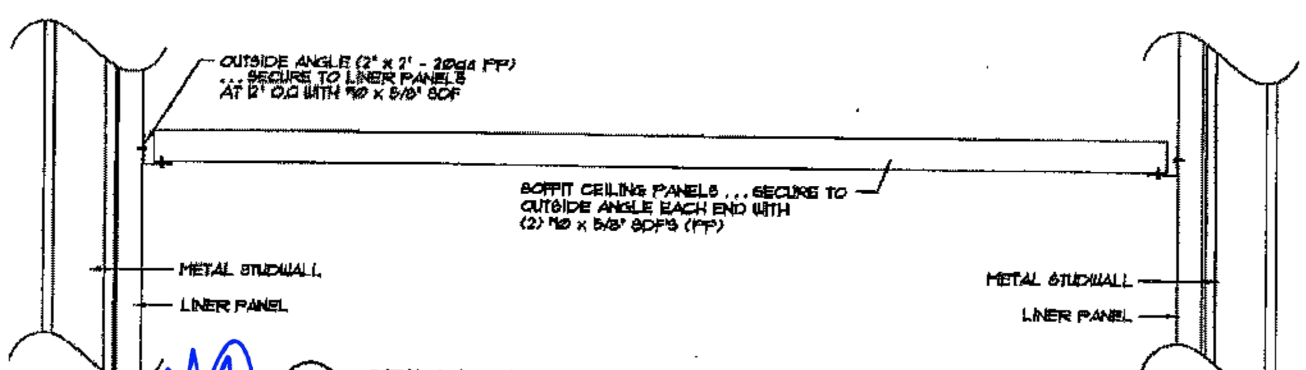
B/260 CEILING SYSTEM SECTION FROM LINER PANEL TO INTERIOR DOOR FRAMING

NOT TO SCALE



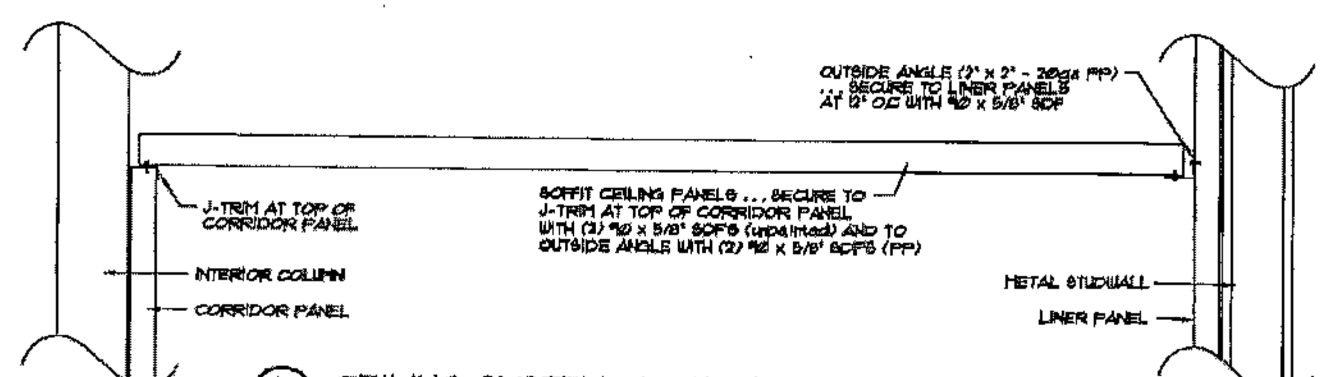
E/260 CEILING SYSTEM SECTION FROM CORRIDOR PANEL TO CORRIDOR PANEL

NOT TO SCALE



C/260 CEILING SYSTEM SECTION FROM LINER PANEL TO LINER PANEL

NOT TO SCALE



F/260 CEILING SYSTEM SECTION FROM CORRIDOR PANEL TO LINER PANEL

NOT TO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

REVISIONS	DATE	BY

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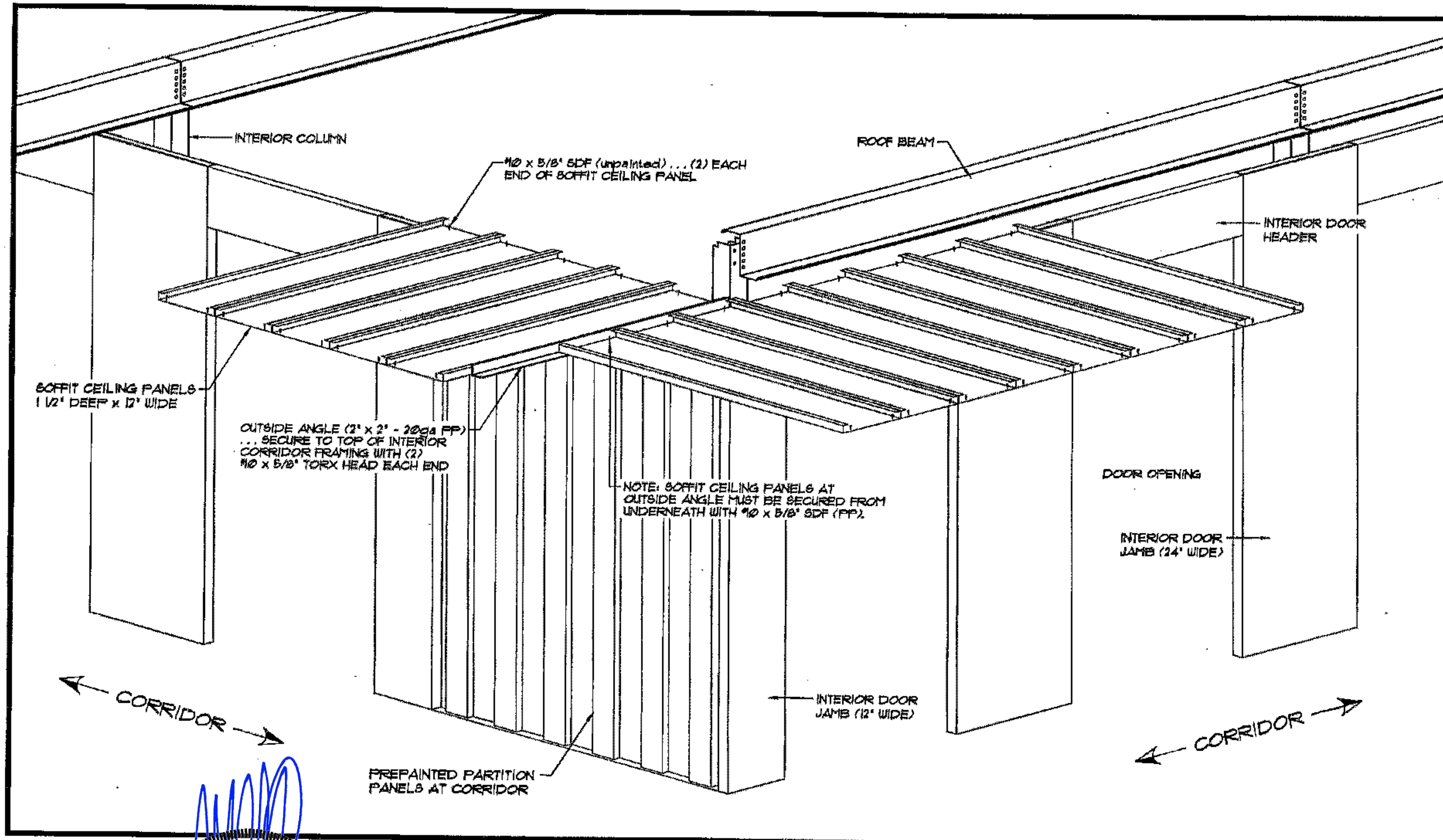
(800)654-7813

SHEET TITLE: Soffit Ceiling System		
DRAWN BY: BDL	APPROVED BY:	DRAWING NUMBER: ERC260X
SCALE: NTS	DATE: 2/20/09	



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SEAL
029129
ENGINEER
STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY
GENERAL REVISION	12/6/12	BDL

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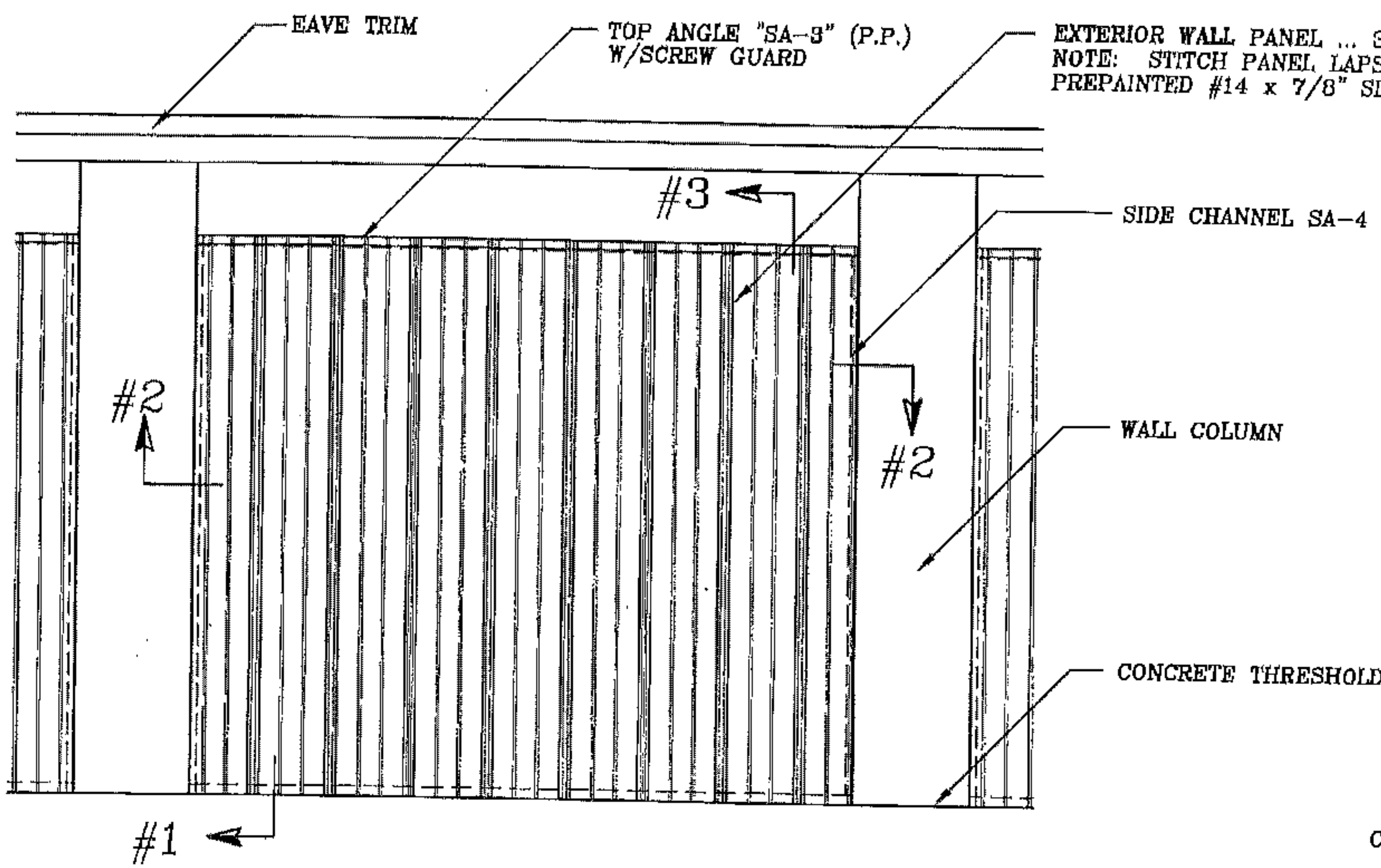
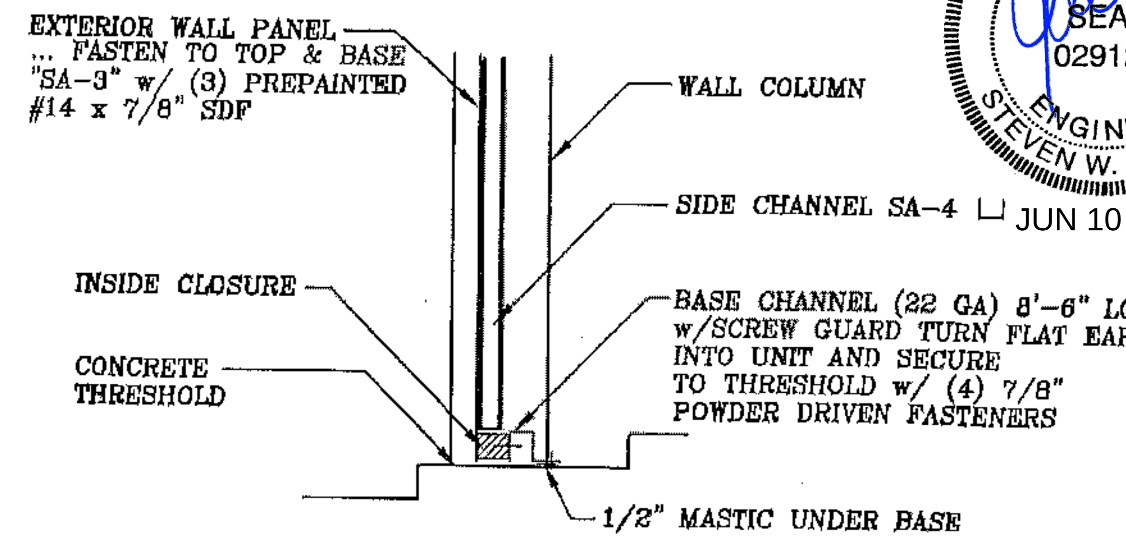
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

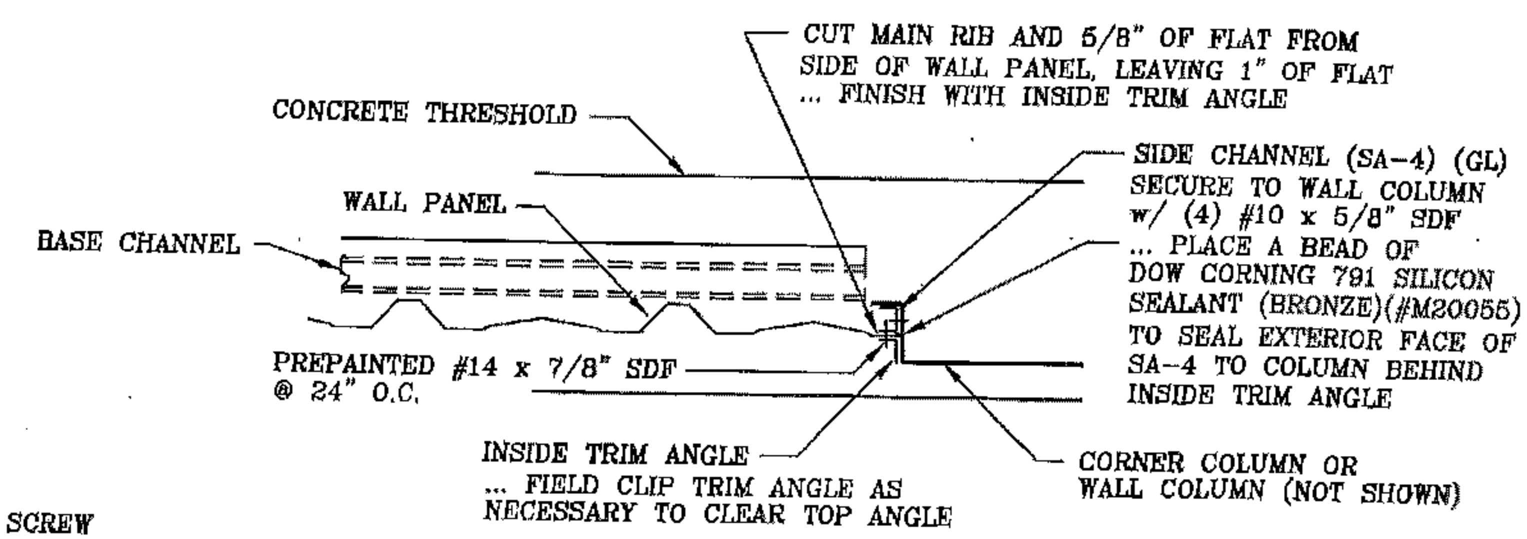
SHEET TITLE: *Soffit Ceiling System Corner Detail*		
DRAWN BY: BDL	APPROVED BY:	DRAWING NUMBER: *ERC262X*
SCALE: NTS	DATE: 2/20/09	



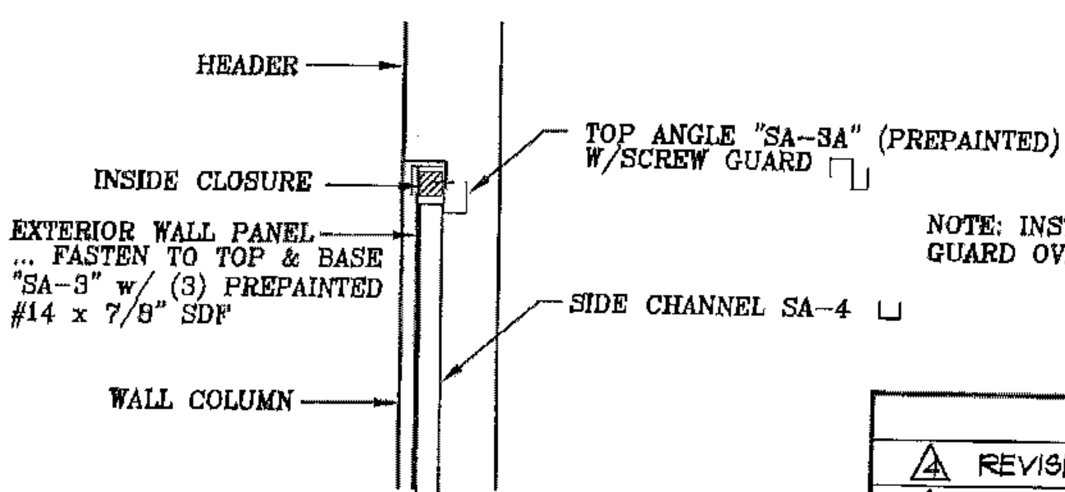
EXTERIOR WALL PANEL INSTALLATION DETAILS



SECTION #1



SECTION #2



NOTE: INSTALL WALL PANEL SCREW GUARD OVER EXPOSED STITCH SCREWS

SECTION #3

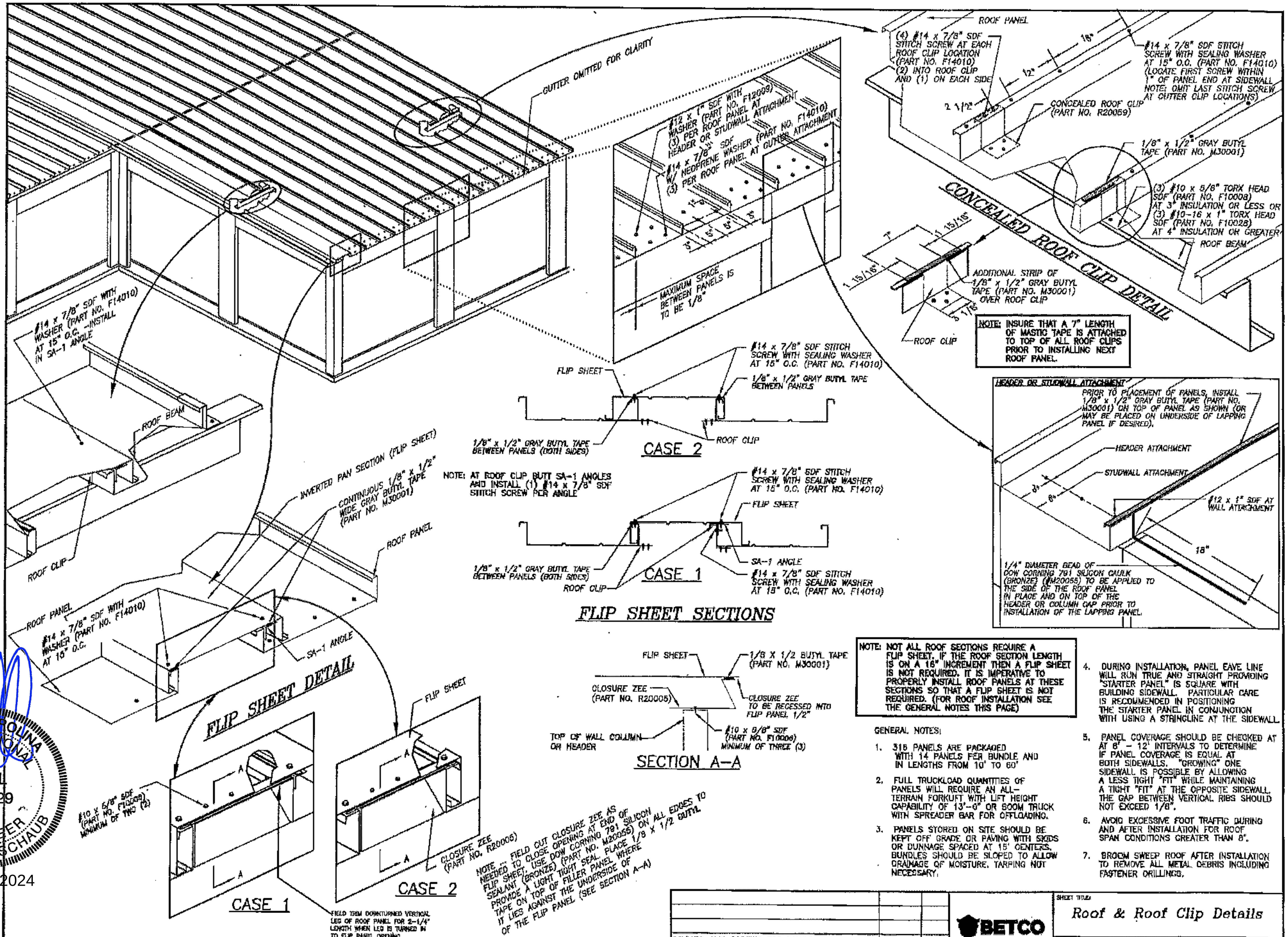
	REVISIONS	DATE	BY
4	REVISED BASE CHANNEL GAGE	2-26-13	DPP
3	REVISED SECTION #2	10-18-04	BDL
2	GENERAL REVISIONS	3-24-99	FOX
1	GENERAL REVISIONS	3-9-99	FOX

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: EXTERIOR WALL PANEL INSTALLATION @ 8'-3" WALL COLUMN w/ 8'-8 LG. HEADER

DRAWN BY: J Pope
APPROVED BY:
DRAWING NUMBER: ERC302X
SCALE: 1/2" = 1'-0"
DATE: 6/27/94

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB
JUN 10 2024



NOTE: NOT ALL ROOF SECTIONS REQUIRE A FLIP SHEET. IF THE ROOF SECTION LENGTH IS ON A 16" INCREMENT THEN A FLIP SHEET IS NOT REQUIRED. IT IS IMPERATIVE TO PROPERLY INSTALL ROOF PANELS AT THESE SECTIONS SO THAT A FLIP SHEET IS NOT REQUIRED. (FOR ROOF INSTALLATION SEE THE GENERAL NOTES THIS PAGE)

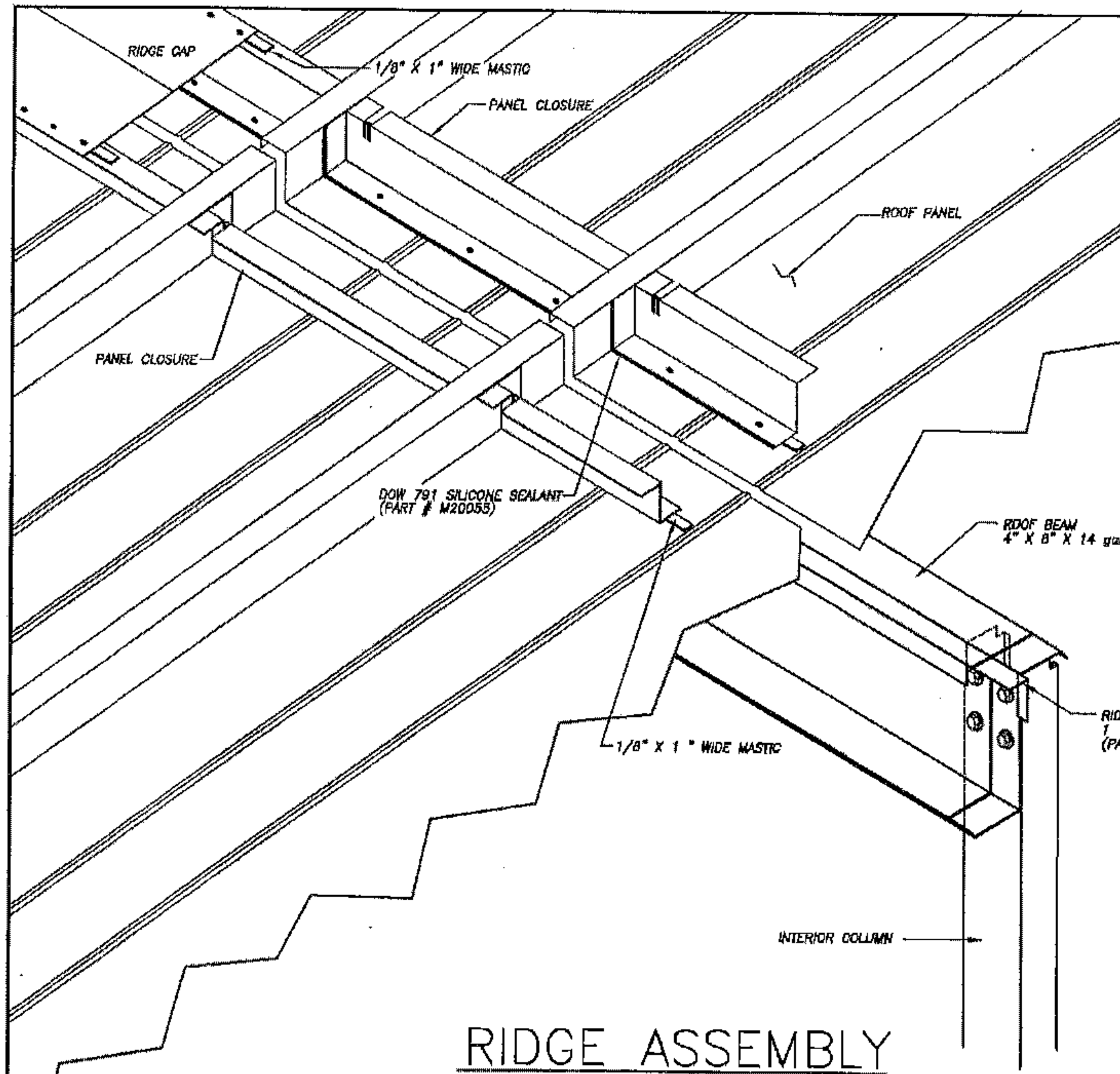
GENERAL NOTES:

1. 316 PANELS ARE PACKAGED WITH 14 PANELS PER BUNDLE AND IN LENGTHS FROM 10' TO 60'
2. FULL TRUCKLOAD QUANTITIES OF PANELS WILL REQUIRE AN ALL-TERRAIN FORKLIFT WITH LIFT HEIGHT CAPABILITY OF 13'-0" OR BOOM TRUCK WITH SPREADER BAR FOR OFFLOADING.
3. PANELS STORED ON SITE SHOULD BE KEPT OFF GRADE OR PAVING WITH SKIDS OR DUNNAGE SPACED AT 15' CENTERS. BUNDLES SHOULD BE SLOPED TO ALLOW DRAINAGE OF MOISTURE. TARPING NOT NECESSARY.
4. DURING INSTALLATION, PANEL EAVE LINE WILL RUN TRUE AND STRAIGHT PROVIDING "STARTER PANEL" IS SQUARE WITH BUILDING SIDEWALL. PARTICULAR CARE IS RECOMMENDED IN POSITIONING THE STARTER PANEL IN CONJUNCTION WITH USING A STRINGLINE AT THE SIDEWALL.
5. PANEL COVERAGE SHOULD BE CHECKED AT AT 8' - 12' INTERVALS TO DETERMINE IF PANEL COVERAGE IS EQUAL AT BOTH SIDEWALLS. "GROWING" ONE SIDEWALL IS POSSIBLE BY ALLOWING A LESS TIGHT "FIT" WHILE MAINTAINING A TIGHT "FIT" AT THE OPPOSITE SIDEWALL. THE GAP BETWEEN VERTICAL RIBS SHOULD NOT EXCEED 1/8".
6. AVOID EXCESSIVE FOOT TRAFFIC DURING AND AFTER INSTALLATION FOR ROOF SPAN CONDITIONS GREATER THAN 8'.
7. BROOM SWEEP ROOF AFTER INSTALLATION TO REMOVE ALL METAL DEBRIS INCLUDING FASTENER DRILLINGS.

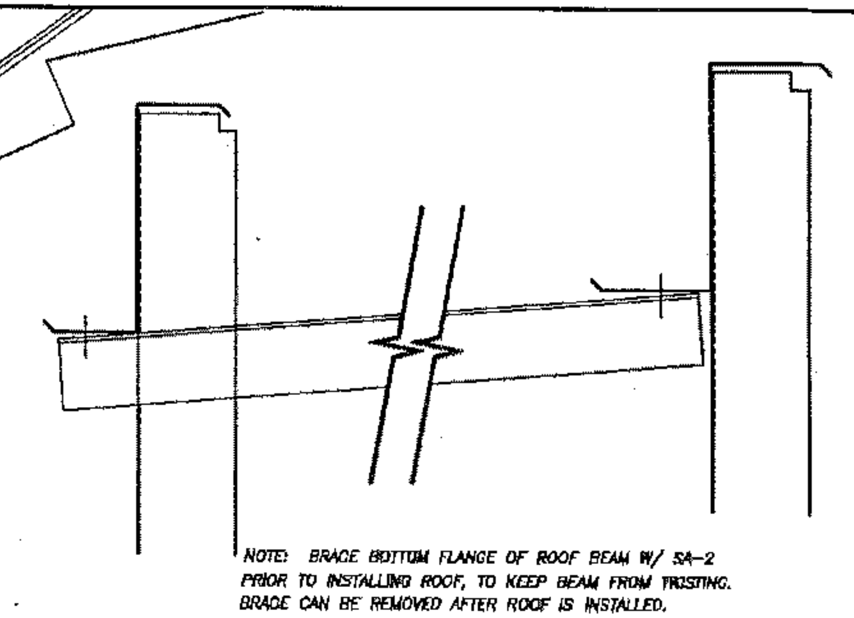
REVISIONS	DATE	BY
REVISED CLIP SCREWS FOR INSULATION THICKNESS	11/9/11	JCM
REVISED ATTACHMENT DIMENSIONS AT EAVES	7/15/08	BDL

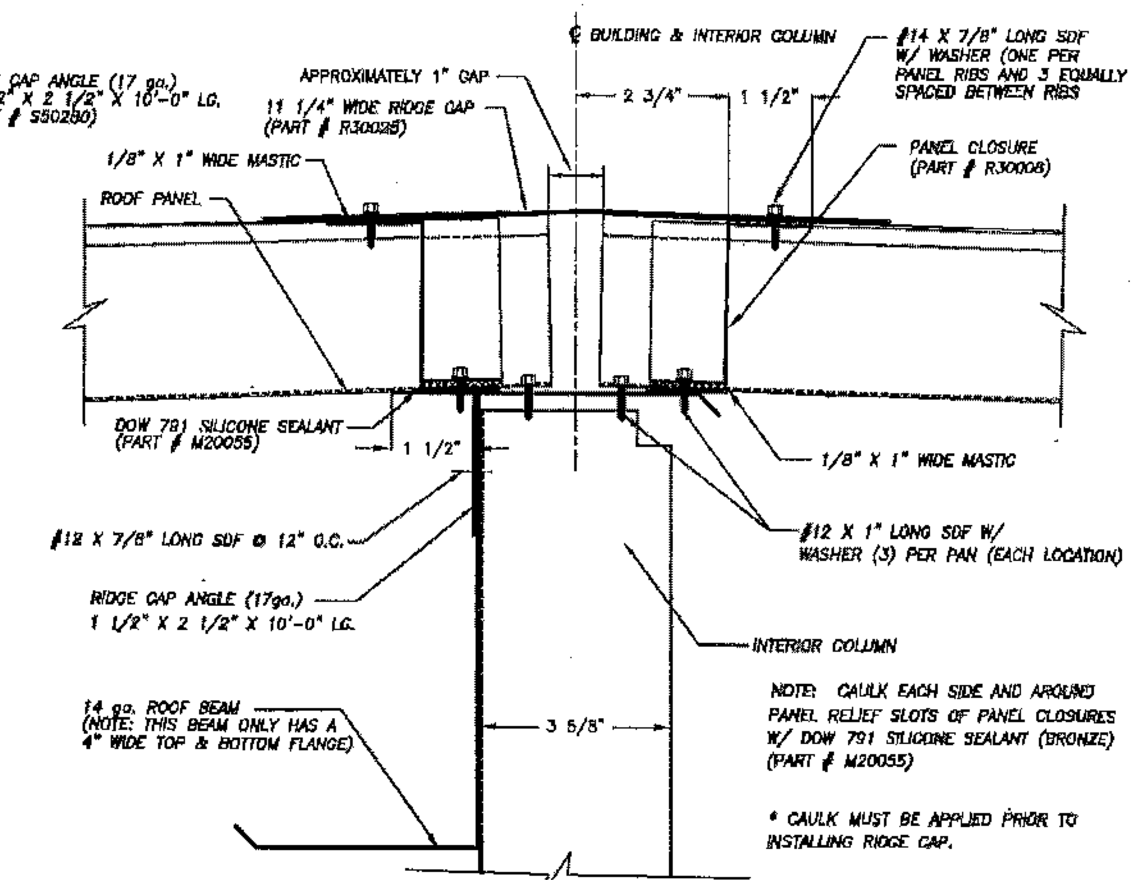
BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: Roof & Roof Clip Details		
DRAWN BY: J. MORRISON	APPROVED BY:	DRAWING NUMBER: ERC410XFL
SCALE: NTS	DATE: 1/10/07	



RIDGE ASSEMBLY





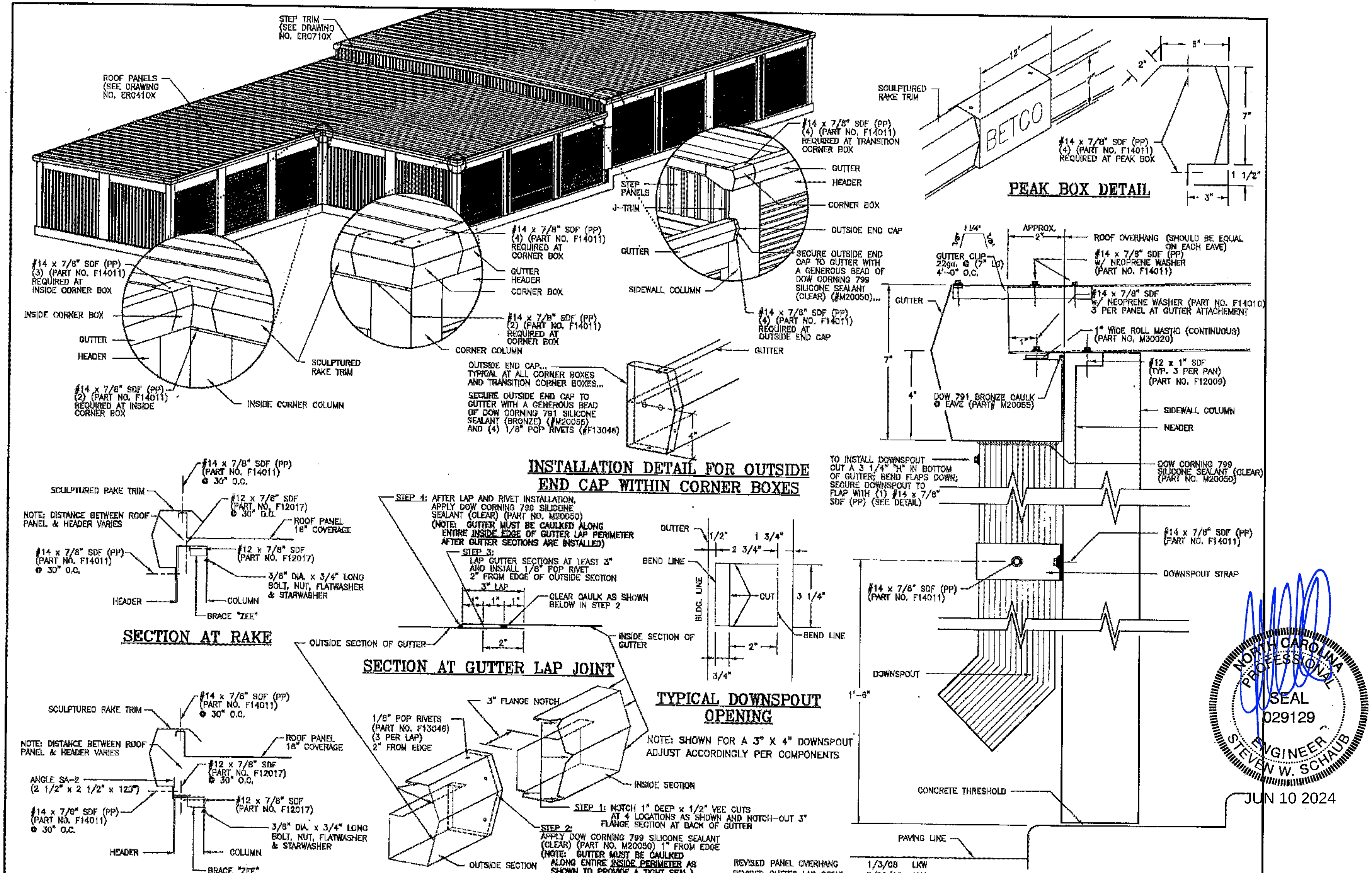
SECTION @ RIDGE CAP

NORTH CAROLINA
PROFESSIONAL
SEAL
029129
ENGINEER
STEVEN W. SCHAUB
JUN 10 2024

REVISIONS	DATE	BY
ADDED SCREWS FOR CLARITY	1/16/04	JCM
REVISED INTERIOR COLUMN SIZE	8/30/02	JCM
GENERAL REVISIONS	3/29/00	BDL
CHANGED FROM CLEAR TO BRONZE SEALANT	8/11/98	JHP
REVISED SECTION @ RIDGE CAP	7/14/98	JHP

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

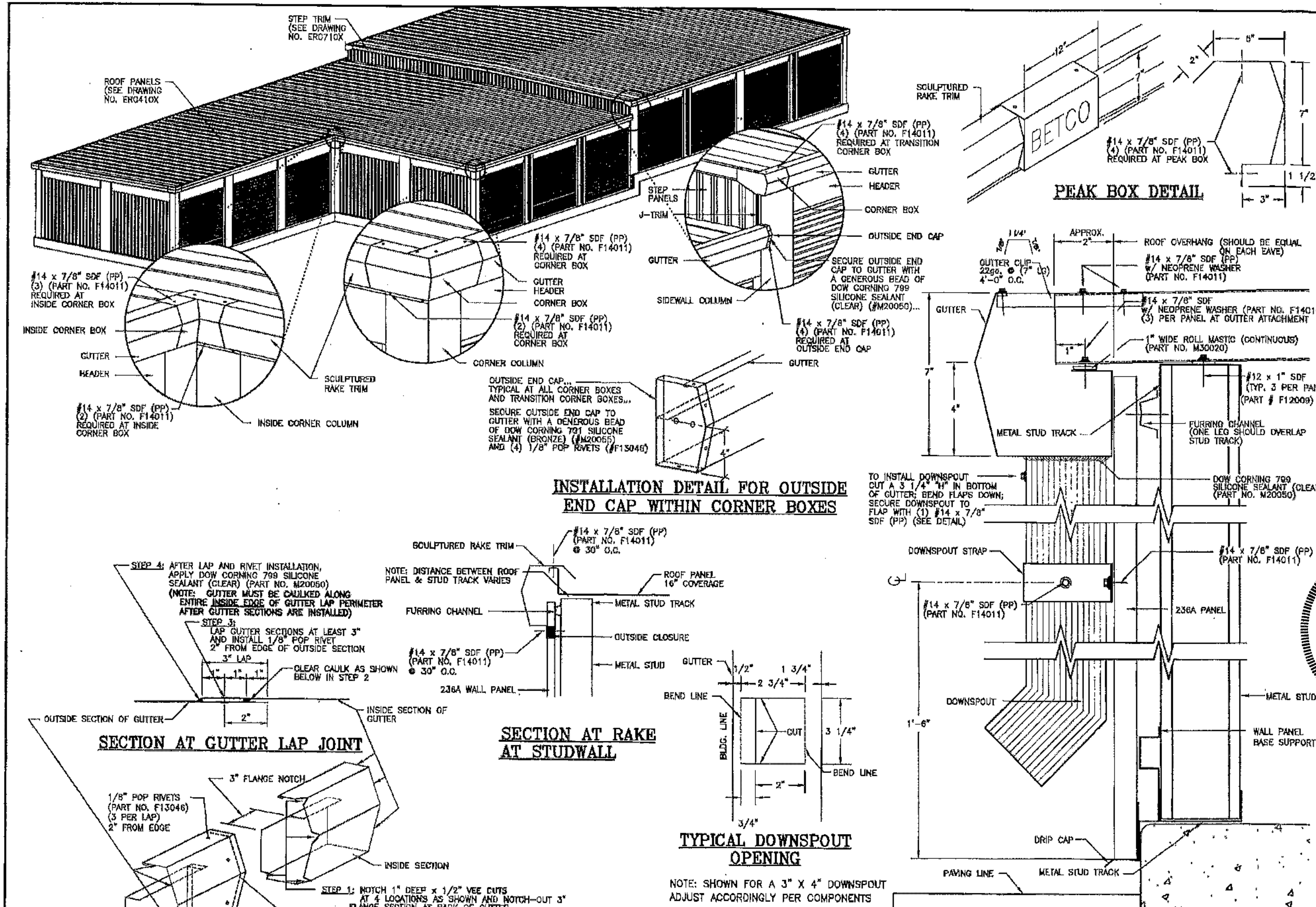
SHEET TITLE: RIDGE CAP ASSEMBLY			
DRAWN BY: JHP	APPROVED BY:		DRAWING NUMBER: ERC420X
SCALE: NTS	DATE: 12/17/98		



REVISIONS	DATE	BY
REVISED PANEL OVERHANG	1/3/08	LKW
REVISED GUTTER LAP DETAIL	3/20/03	JCM
REVISED FASTENER SIZE	1/15/03	JCM
REVISED GUTTER JOINT DETAIL	10/9/02	JCM
CHANGED INSIDE END CAP TO OUTSIDE END CAP	12/13/00	BDL
REVISED DOWNSPOUTS	07/10/00	JCM
GENERAL REVISIONS	03/19/99	FOX

BETCO
228 COMMERCE BLVD. STATESVILLE, NC 28625 (800)654-7813

SHEET TITLE:	*Sculptured Rake Trim, Extended Gutters and Downspouts*
DRAWN BY: CJG	APPROVED BY:
SCALE: NTS	DATE: 4/7/98
DRAWING NUMBER:	ERC505X



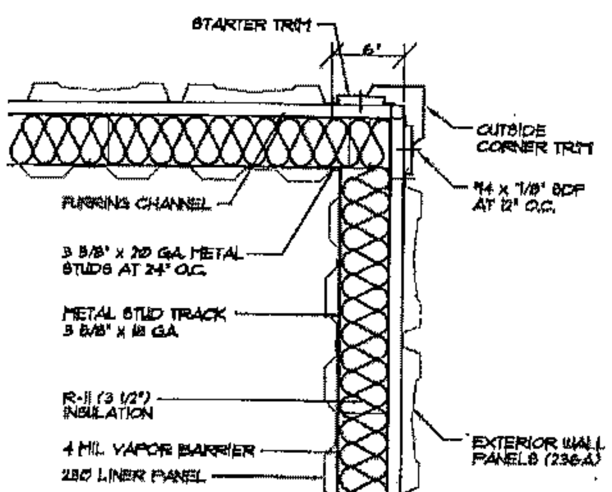
REVISIONS	DATE	BY
REVISED PANEL OVERHANG	1/3/08	LKW
ADDED RAKE AT STUDWALL DETAIL	1/16/04	JCM
REVISED GUTTER LAP DETAIL	3/20/03	JCM
REVISED FASTENER SIZE	1/15/03	JCM
REVISED GUTTER JOINT DETAIL	10/8/02	JCM
REVISED STUDWALL NOTES	8/29/02	BAM
CHANGED INSIDE END CAP TO OUTSIDE END CAP	12/13/00	BDL

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: *Sculptured Rake Trim, Extended Gutters and Downspouts at Studwall*

DRAWN BY:	APPROVED BY:	DRAWING NUMBER
CJG		ERC506X
SCALE: NTS	DATE: 4/7/98	

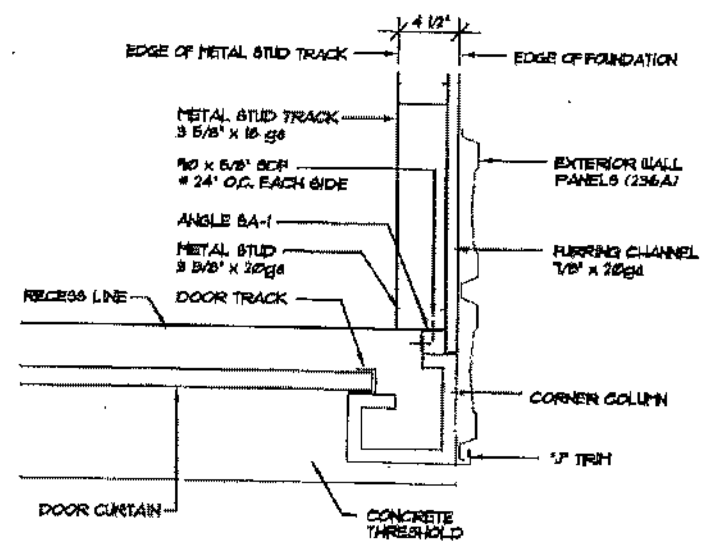
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029129 STEVEN W. SCHAUB
JUN 10 2024



INSULATED STUDWALL CORNER DETAIL

NOT TO SCALE

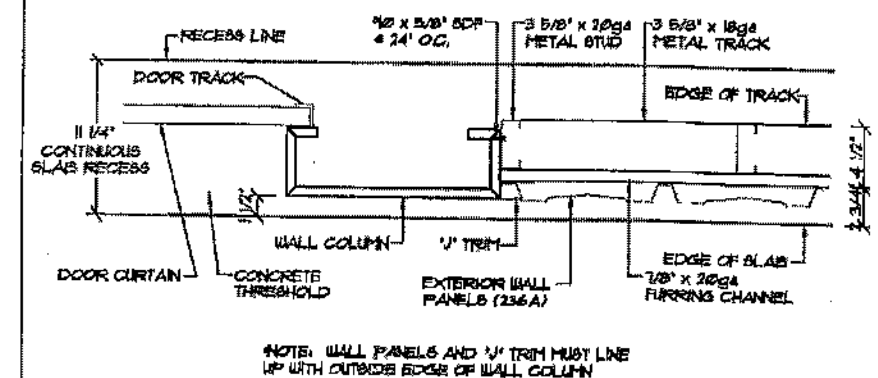
A
600



C
600

STUDWALL CONSTRUCTION @ CORNER COLUMN

NOT TO SCALE



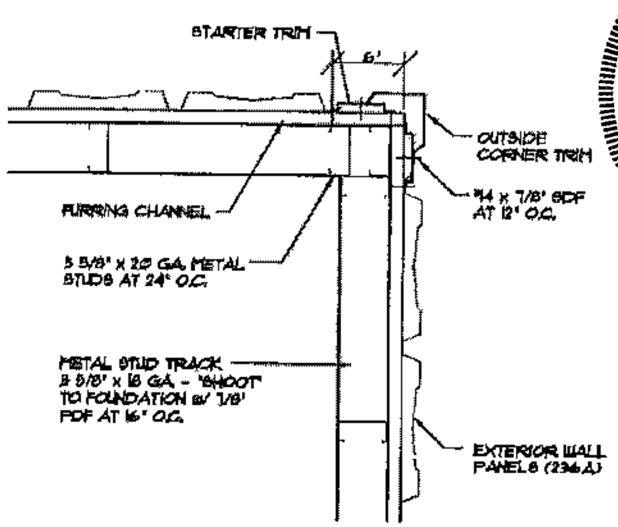
E
600

STUDWALL CONSTRUCTION @ WALL COLUMN IN RECESS

NOT TO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

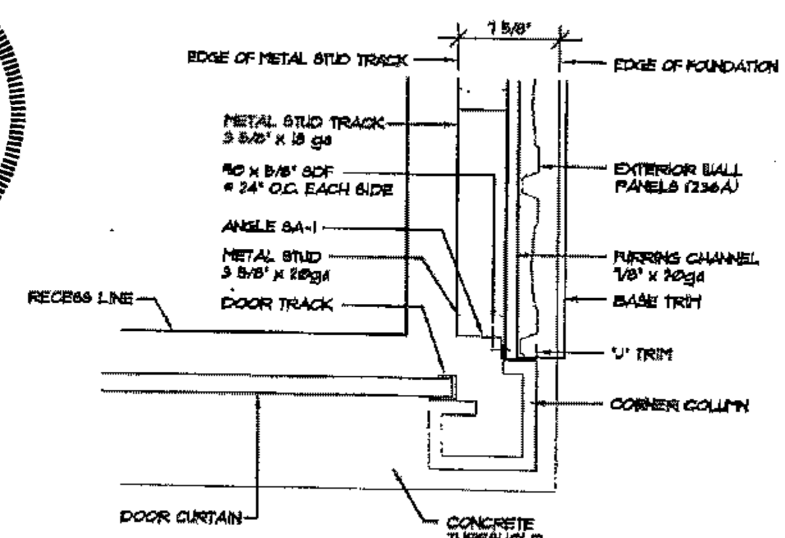
JUN 10 2024



UNINSULATED STUDWALL CORNER DETAIL

NOT TO SCALE

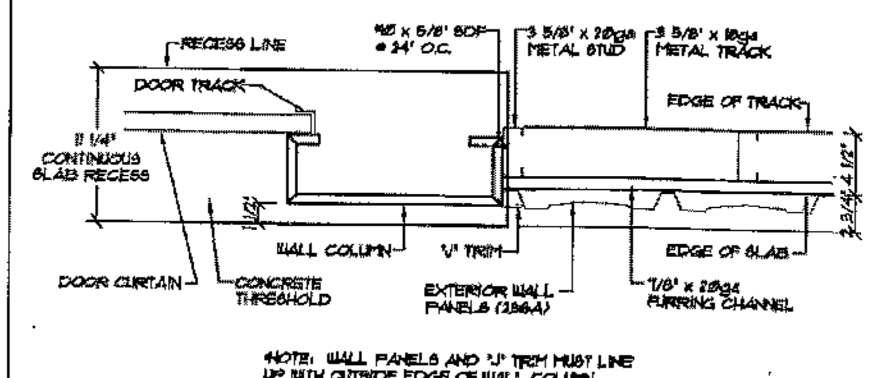
B
600



D
600

STUDWALL CONSTRUCTION @ CORNER COLUMN W/ THRESHOLD

NOT TO SCALE



F
600

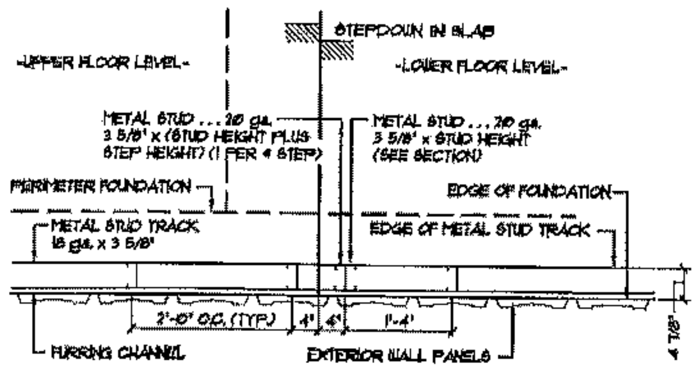
STUDWALL CONSTRUCTION @ WALL COLUMN

NOT TO SCALE

REVISIONS	DATE	BY
⚠ REVISED STUD SIZE	8/29/02	BAM

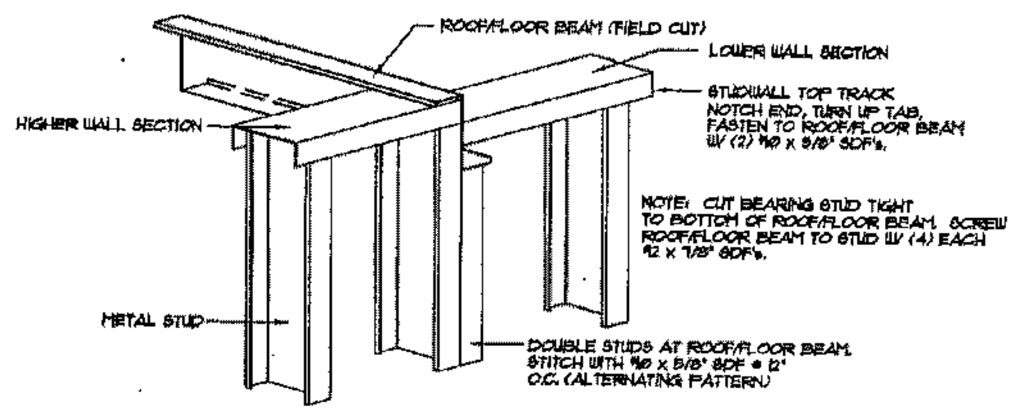
BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: Studwall Details		
DRAWN BY: CJG	APPROVED BY:	DRAWING NUMBER: ERC600X
SCALE: NTS	DATE: 4/14/00	



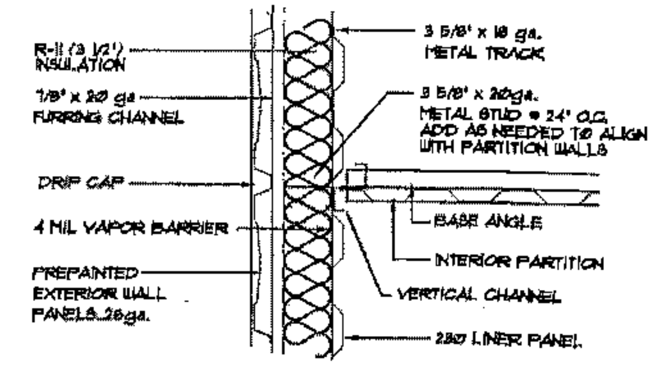
A/601 PLAN VIEW OF STUDWALL @ FLOOR STEPDOWN

NOT TO SCALE



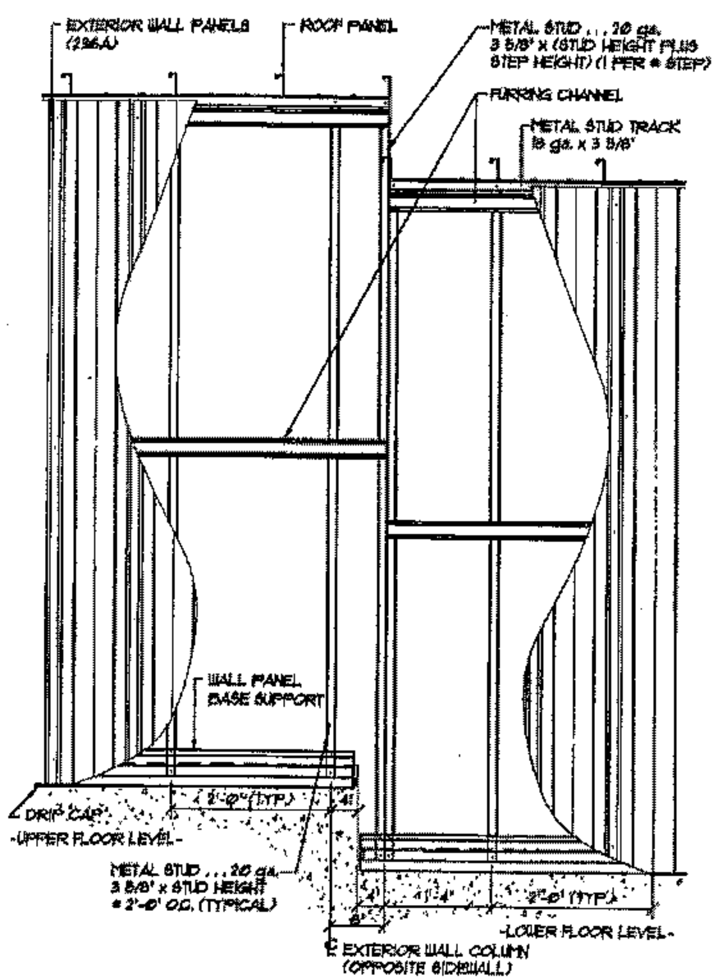
C/601 ROOF/FLOOR BEAM @ STUDWALL

NOT TO SCALE



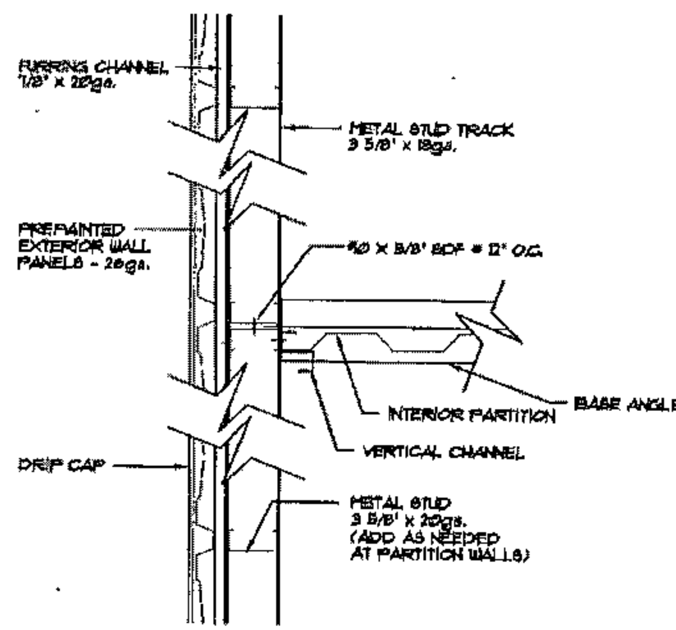
E/601 PARTITION INSTALLATION AT INSULATED EXTERIOR STUDWALL

NOT TO SCALE



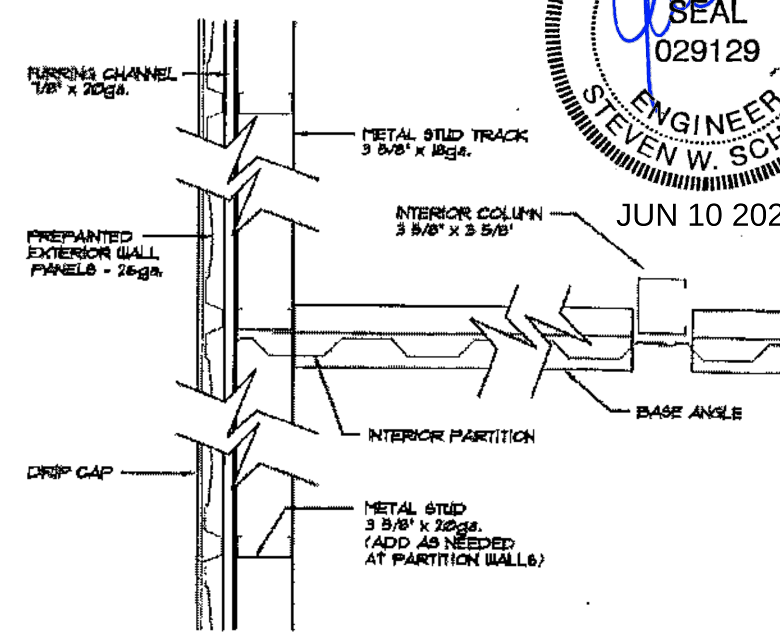
B/601 ELEVATION @ STUDWALL AND STEPDOWN

NOT TO SCALE



D/601 PARTITION INSTALLATION UNDER ROOF BEAM

NOT TO SCALE



F/601 PARTITION INSTALLATION AT STUDWALL

NOT TO SCALE

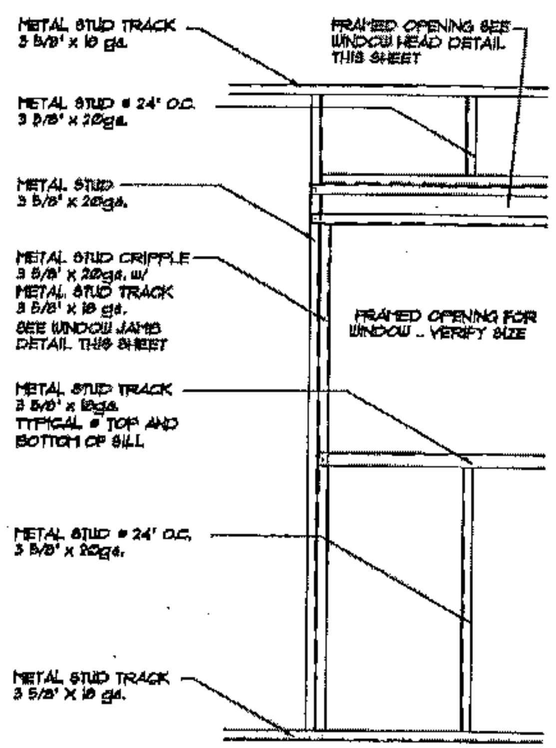
NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

	REVISIONS	DATE	BY
3	REVISED C/601 TO INCLUDE FLOOR BEAM	5/1/03	JCM
2	REVISED C/601 TO INCLUDE FLOOR BEAM	4/17/03	JCM
1	REVISED STUD SIZE	8/29/02	BAM

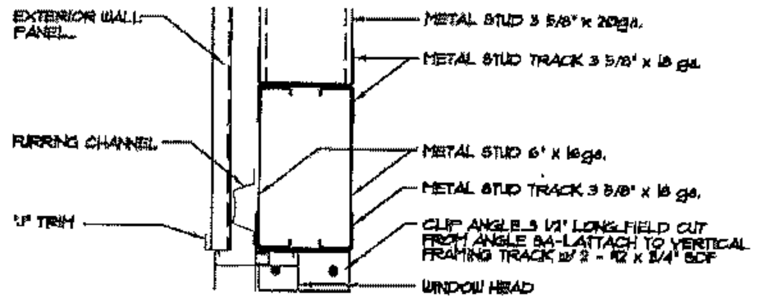
BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE:	Studwall Details
DRAWN BY: CJG	APPROVED BY:
SCALE: NTS	DATE: 4/14/00
DRAWING NUMBER:	ERC601X



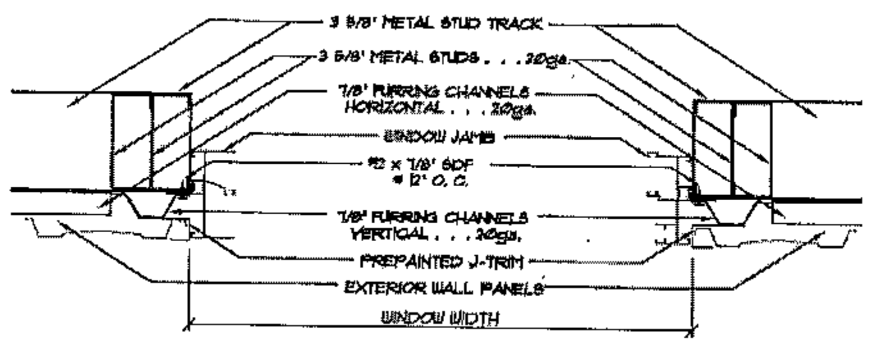
WINDOW OPENING FRAMING DETAIL

NOT TO SCALE



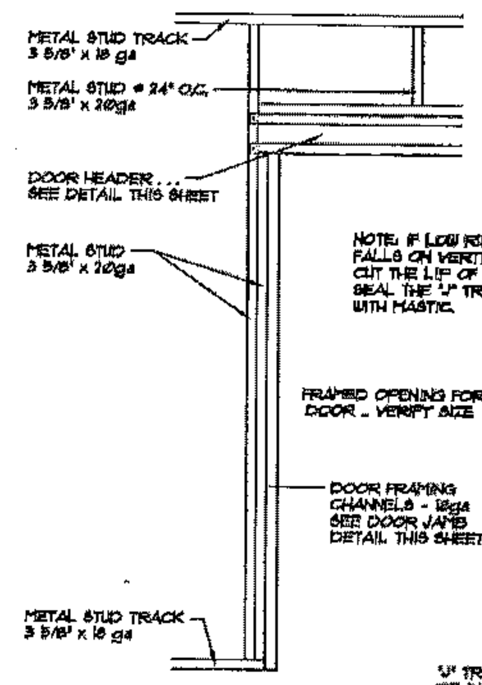
TYPICAL WINDOW HEADER DETAIL

NOT TO SCALE



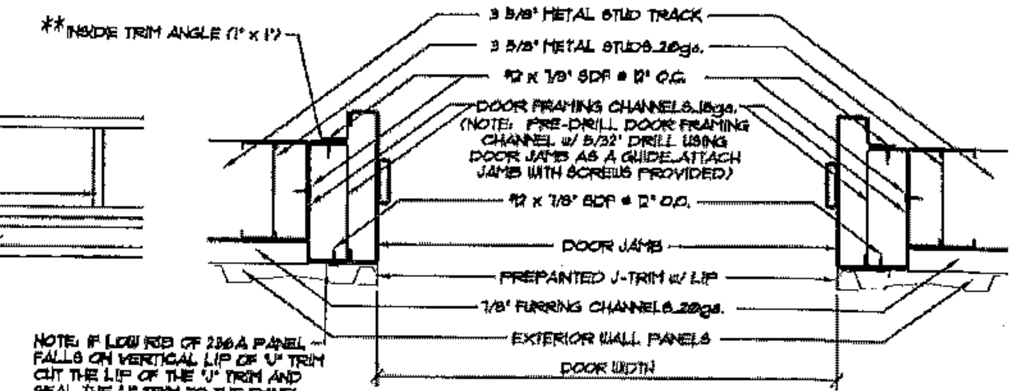
TYPICAL WINDOW JAMB DETAIL

NOT TO SCALE



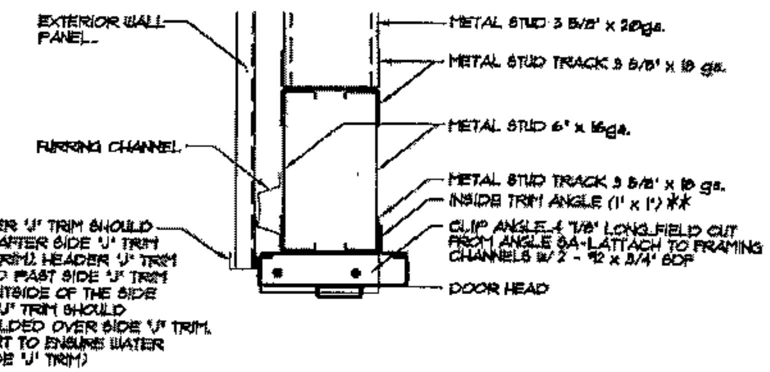
DOOR OPENING FRAMING DETAIL

NOT TO SCALE



TYPICAL DOOR JAMB DETAIL

NOT TO SCALE



'J' TRIM (HEADER 'J' TRIM SHOULD BE INSTALLED AFTER SIDE 'J' TRIM (VERTICAL 'J' TRIM). HEADER 'J' TRIM SHOULD EXTEND PAST SIDE 'J' TRIM AND LAP ON OUTSIDE OF THE SIDE 'J' TRIM. HEAD 'J' TRIM SHOULD BE CUT AND FOLDED OVER SIDE 'J' TRIM. CAULK THE JOINT TO ENSURE WATER DUMPS INTO SIDE 'J' TRIM)

TYPICAL DOOR HEADER DETAIL

NOT TO SCALE

** USE INSIDE TRIM ANGLE IF LINER PANELS ARE NOT SUPPLIED. IF LINER PANELS ARE SUPPLIED, TRIM AROUND DOOR WITH J-TRIM.

NOTE:
VERIFY ACTUAL DOOR DIMENSIONS PRIOR TO FRAMING OPENINGS AS DOORS CAN VARY SLIGHTLY FROM THE DIMENSIONS LISTED BY MANUFACTURER.

	FLYCO*	PDL*	GLOBAL*
DOOR SIZE	OUT TO OUT FRAME DIMENSION	OUT TO OUT FRAME DIMENSION	OUT TO OUT FRAME DIMENSION
3'-6" x 6'-8"	3'-10" x 6'-9 13/16"	3'-10" x 6'-10 1/4"	3'-10" x 6'-10 1/4"
4'-0" x 6'-8"	4'-4" x 6'-9 13/16"	4'-4" x 6'-10 1/4"	4'-4" x 6'-10 1/4"
3'-6" x 7'-0"	3'-10" x 7'-1 13/16"	3'-10" x 7'-2 1/4"	3'-10" x 7'-2 1/4"
4'-0" x 7'-0"	4'-4" x 7'-1 13/16"	4'-4" x 7'-2 1/4"	4'-4" x 7'-2 1/4"

* VERIFY DOOR MANUFACTURER WITH TAKE-OFF

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

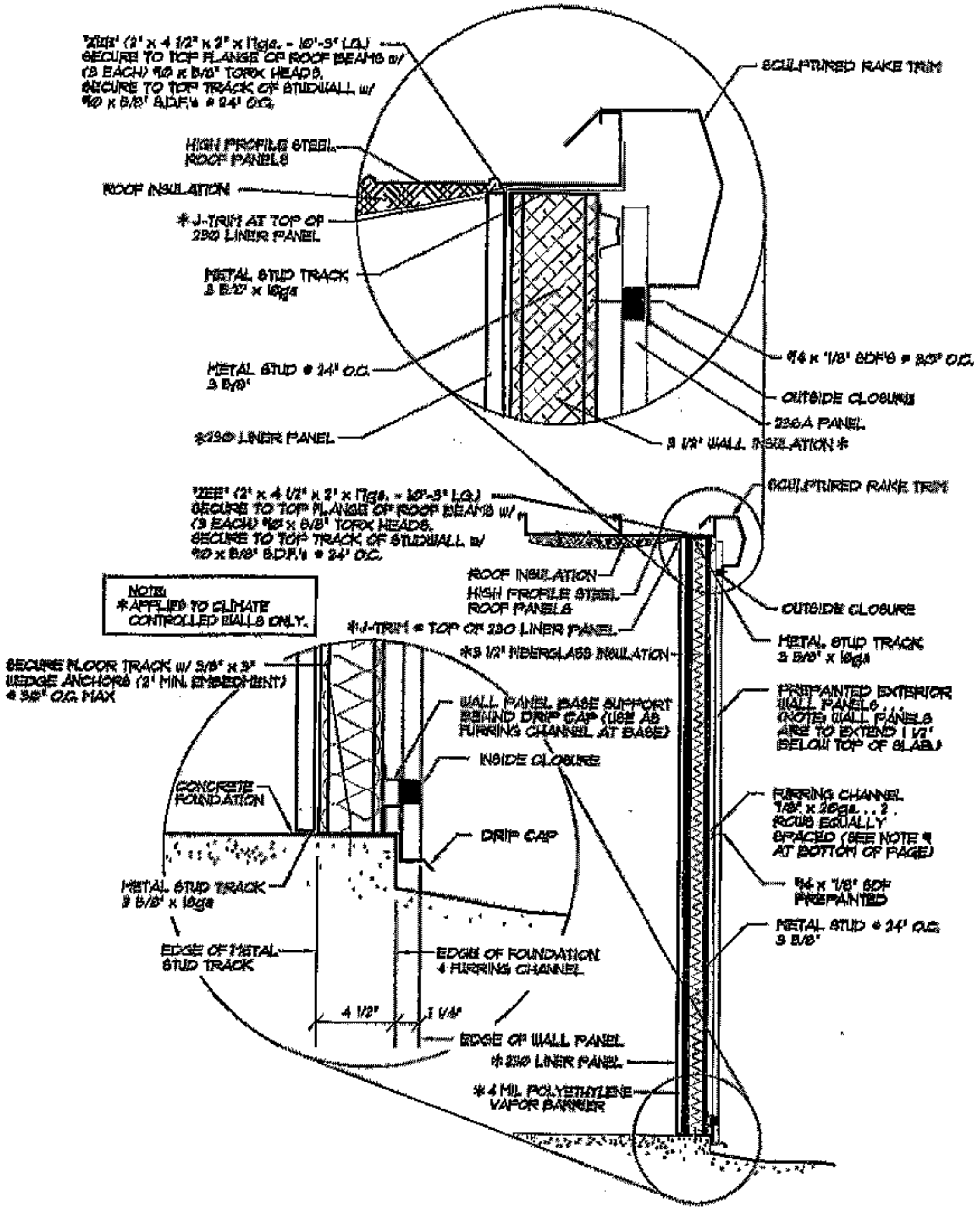
JUN 10 2024

REVISIONS	DATE	BY
REVISED 'J' TRIM AT PERSONNEL DOORS	1/25/11	JCM
ADDED GLOBAL DOORS TO CHART	11/22/11	JCM
REVISED DUE TO DOOR HEIGHT CHANGE	4/1/05	BDL

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

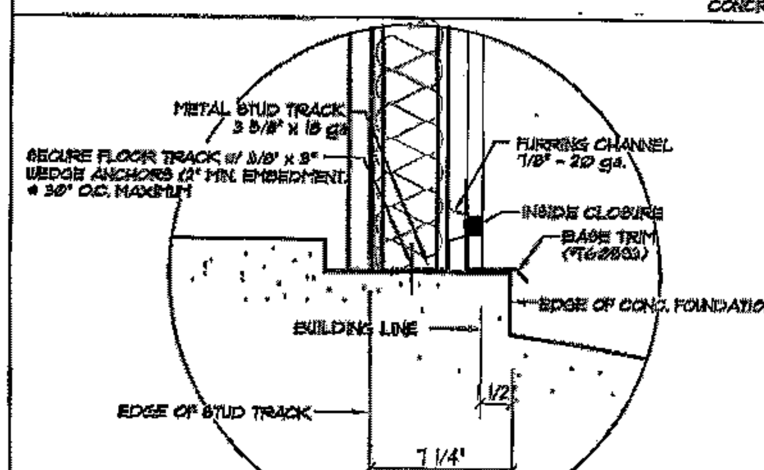
SHEET TITLE: Exterior Personnel Door & Window Details In Studwall

DRAWN BY: JCM
APPROVED BY:
DRAWING NUMBER: ERC602X
SCALE: NTS
DATE: 9/19/02

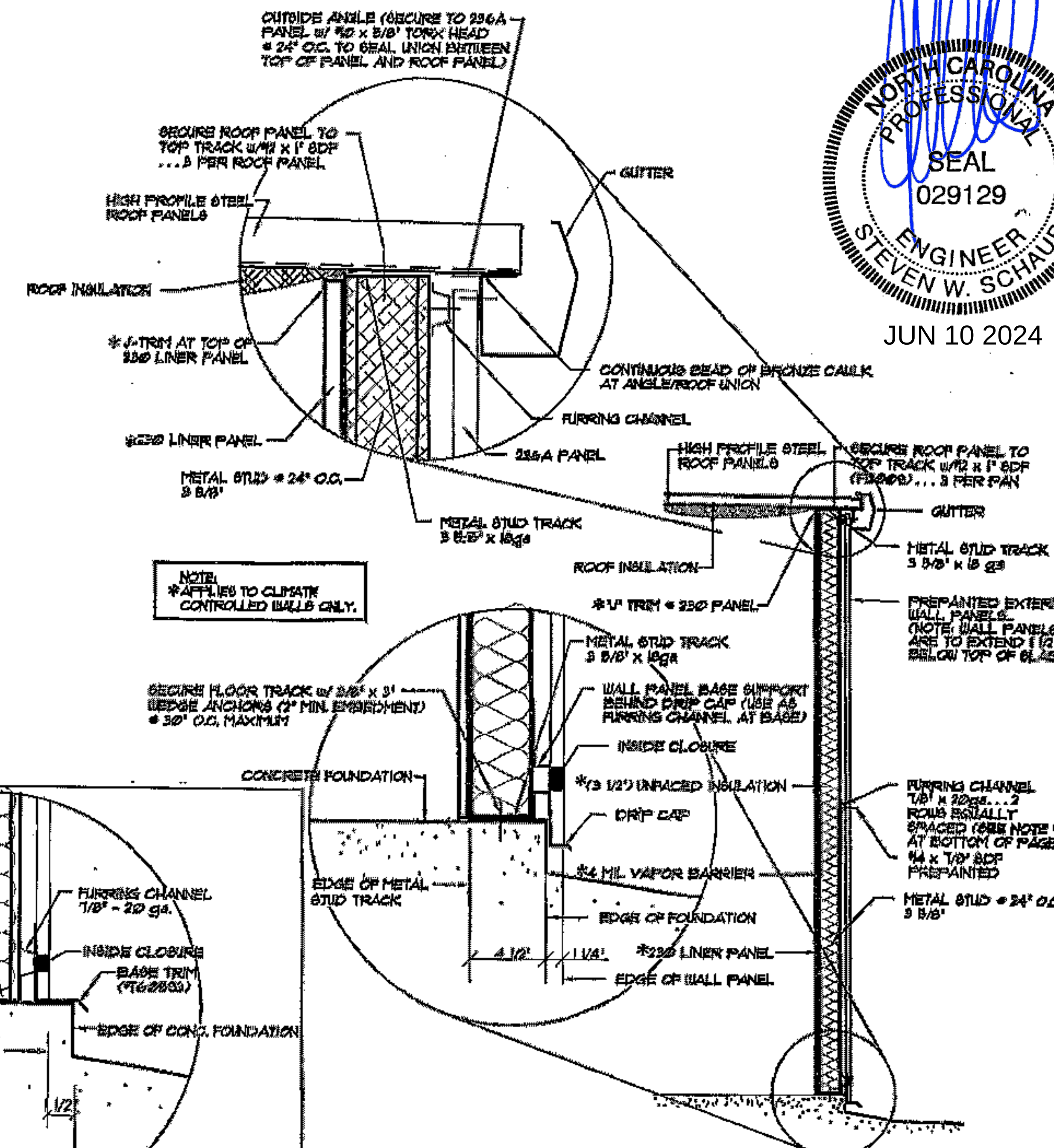


A 630 SECTION AT EXTERIOR STUDWALL ENDWALL

NOT TO SCALE



BASE CONDITION FOR STUDWALL IN RECESS



B 630 SECTION AT EXTERIOR STUDWALL SIDEWALL

NOT TO SCALE

NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

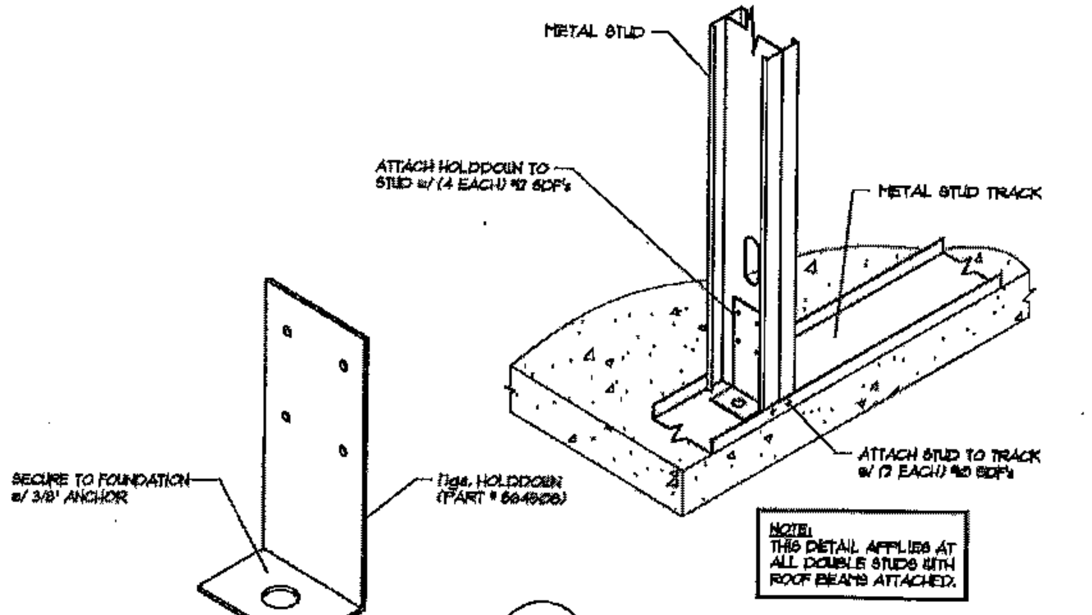
NOTE #1: IF STUDWALL IS GREATER THAN OR EQUAL TO 9'-10 1/8" HGT. 2 EQUALLY SPACED ROWS OF INTERMEDIATE FURRING CHANNELS ARE REQUIRED BETWEEN BASE AND TOP OF STUDWALL.

NOTE #2: NOT ALL BUILDINGS HAVE ROOF INSULATION, CHECK CROSS SECTION FOR INSULATION.

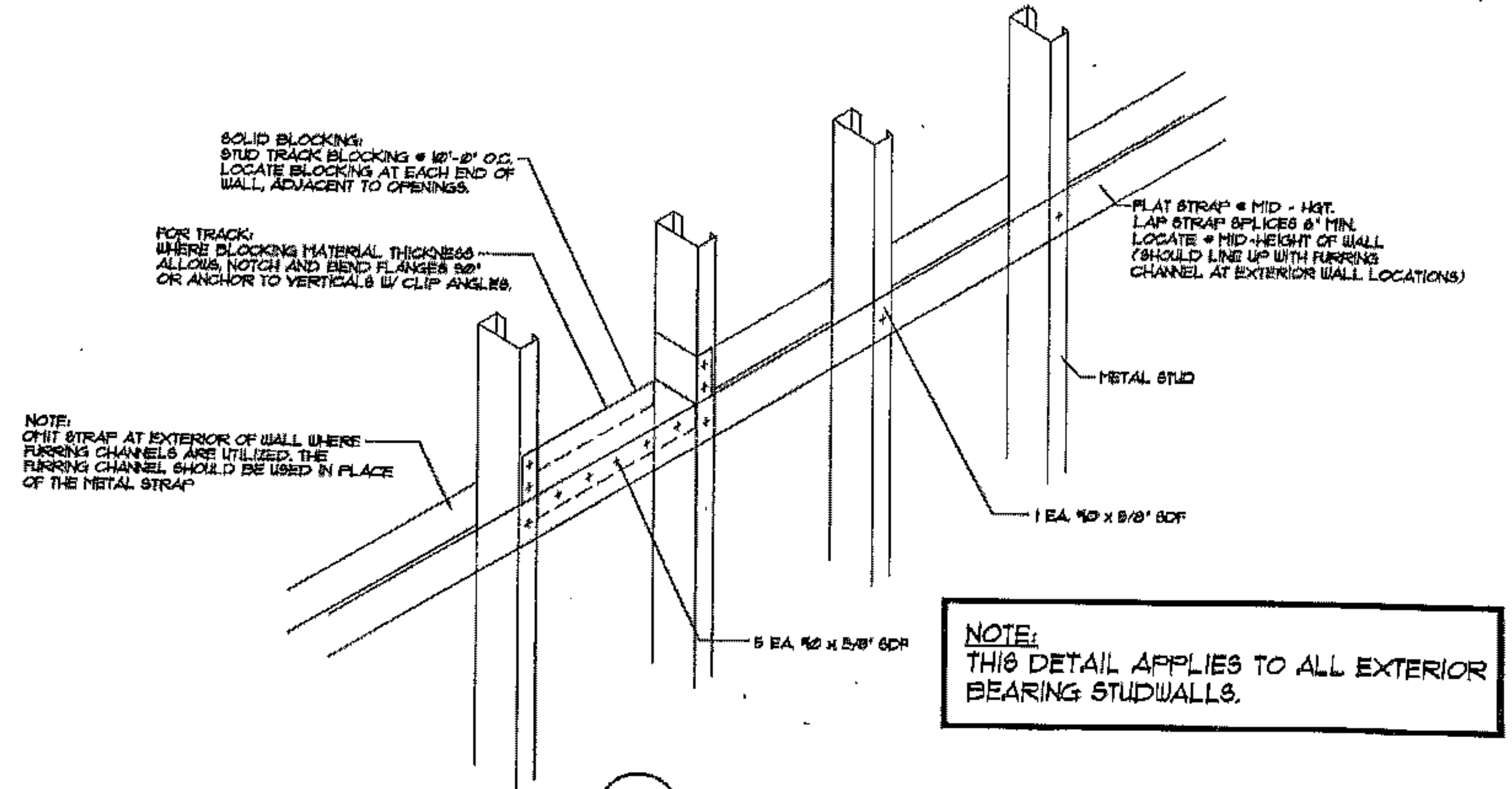
REVISIONS	DATE	BY
REVISED ENDWALL ZEE FROM 5 3/4" TO 4 1/2"	5/24/23	BDL

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

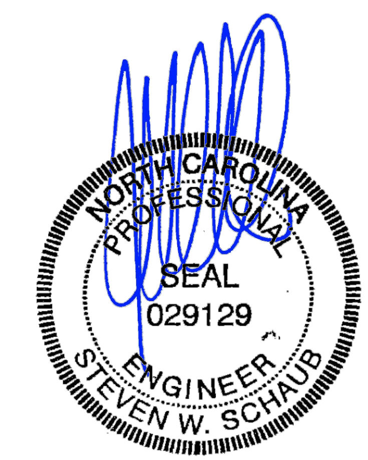
SHEET TITLE: Studwall Sections		
DRAWN BY: JCM	APPROVED BY:	DRAWING NUMBER: ERC630X
SCALE: NTS	DATE: 11/8/11	



B/631 HOLDDOWN ANCHORING
SCALE: NONE



A/631 WALL BLOCKING DETAIL
SCALE: NONE

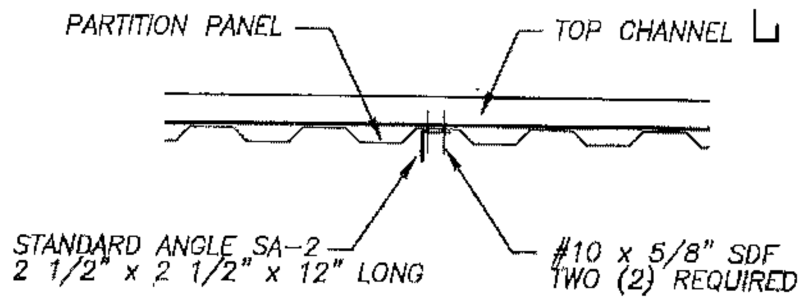


JUN 10 2024

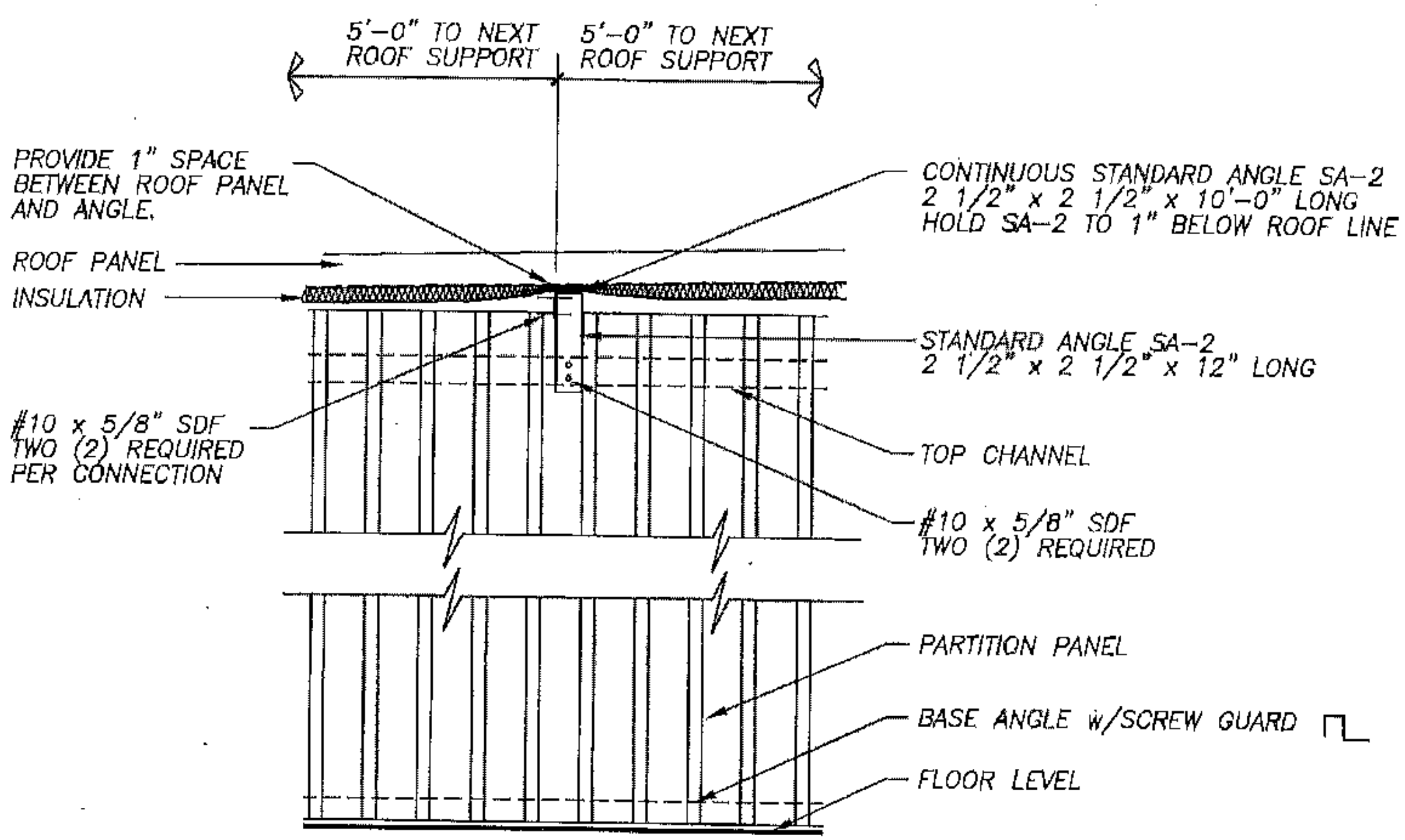
REVISIONS	DATE	BY

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

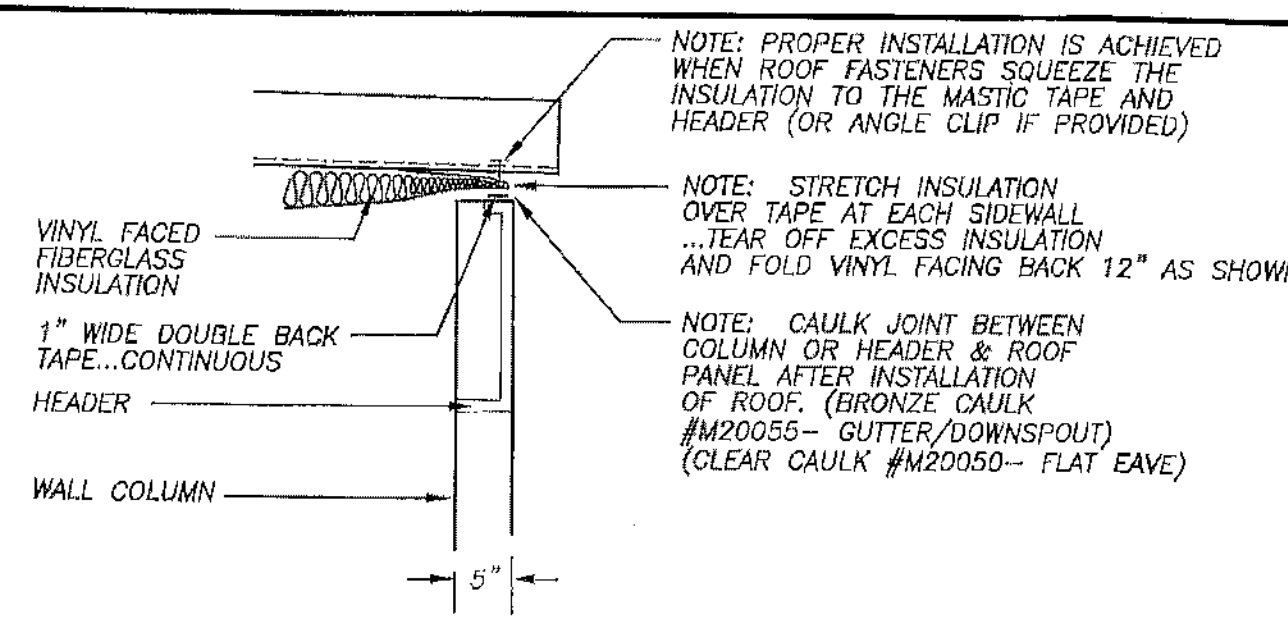
SHEET TITLE: Studwall Details		
DRAWN BY: JCM	APPROVED BY:	DRAWING NUMBER: ERC631X
SCALE: NTS	DATE: 11/8/11	



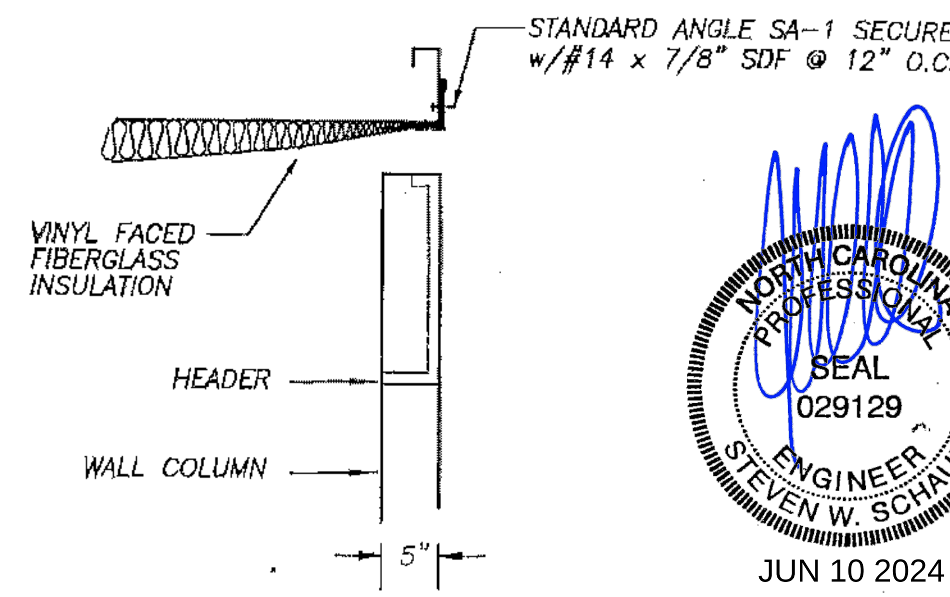
PLAN VIEW



ELEVATION AT INTERMEDIATE INSULATION SUPPORT



INSULATION INSTALLATION @ SIDEWALL



NORTH CAROLINA PROFESSIONAL SEAL 029129 ENGINEER STEVEN W. SCHAUB

JUN 10 2024

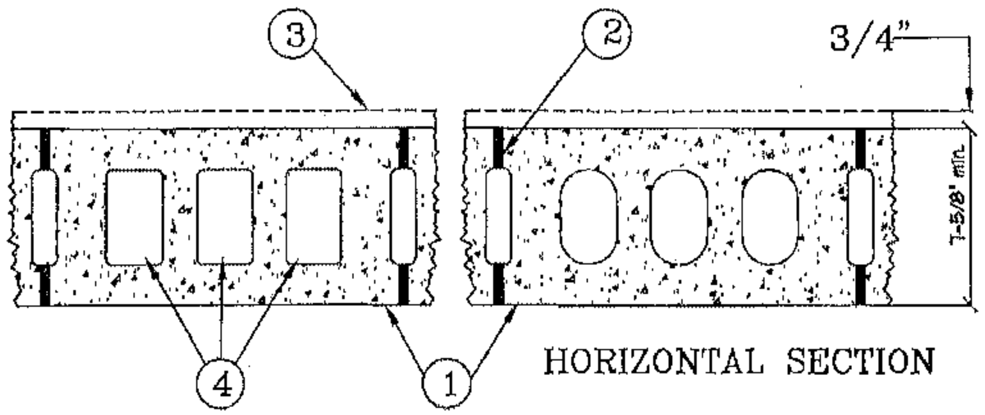
INSULATION INSTALLATION AT END WALL

REVISIONS	DATE	BY
3 ADDED ROOF FASTENER NOTE	4/17/03	JCM
2 REVISED SA-2 GAP	1/14/03	BAM
1 GENERAL REVISIONS	3-8-99	FOX

BETCO
228 COMMERCE BLVD.
STATESVILLE, NC 28625
(800)654-7813

SHEET TITLE: Insulation installation		
DRAWN BY: J Pope	APPROVED BY:	DRAWING NUMBER:
SCALE: NTS	DATE: 6-27-94	ERC700X

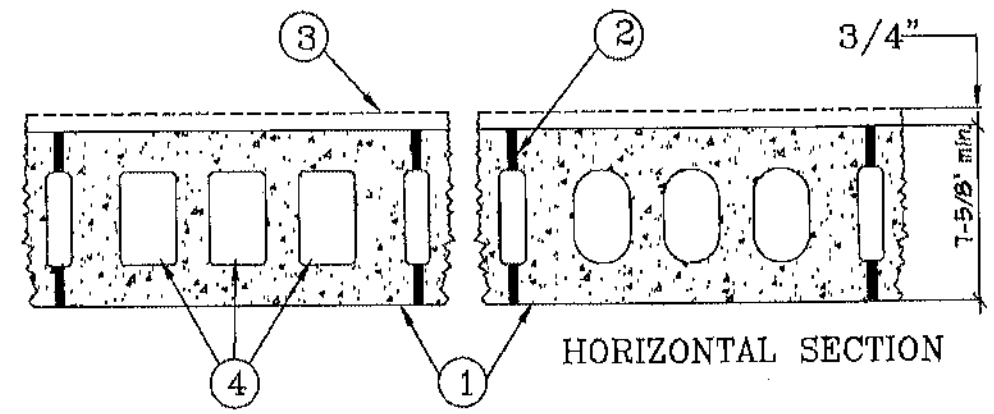
Design No. U901
Bearing Wall Rating--4 hr.
Nonbearing Wall Rating--4 hr.



1. Concrete Blocks*-Various designs. Classification B-4 (4hr).
   See Concrete Blocks category for lists of eligiblle manufacturers.
2. Mortar-Blocks laid in full bed of mortar, nom. 3/8" thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume0 and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
3. Portland Cement Stucco or Gypsum Plaster-If nsed, add 1/2 hr. to Classification.
4. Loose Masonry Fill-If all core spaces are filled with loose dry expanded slag, burned clay, or shale (rotary kiln process), water repellant vermioulite masonry fill insulation, or silicone treated perlite loose fill insulation, Class D-2 (2 hr) or C-3 (3 hr) concrete blocks will provide a 4 hr fire resistance rating.

*Bearing the UL Classification Marking

Design No. U904
Bearing Wall Rating--3 hr.
Nonbearing Wall Rating--3 hr.



1. Concrete Blocks*-Various designs. Classification C-3 (3hr).
   See Concrete Blocks category for lists of eligiblle manufacturers.
2. Mortar-Blocks laid in full bed of mortar, nom. 3/8" thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
3. Portland Cement Stucco or Gypsum Plaster-If used, add 1/2 hr. to Classification.
4. Loose Masonry Fill-If all core spaces are filled with loose dry expanded slag, expanded clay or shale (rotary kiln process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 1 hour to classification.

*Bearing the UL Classification Marking

JUN 10 2024

REVISIONS	DATE	BY

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STATESVILLE, NC 28625
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SHEET TITLE: UL SPECIFICATIONS U901 & U904		
DRAWN BY: DSF	APPROVED BY:	DRAWING NUMBER:
SCALE: NTS	DATE: 5/16/01	ERC754X